"SUPERFUND" LEGISLATION

(H.R.85, H.R.7020, S.1480)

INTRODUCTION

Enactment of "superfund" legislation is a high priority for both the Carter Administration and environmentalists. Its initial focus was land pollution, which had been overlooked when the environmental movement of the 1970s successfully lobbied for air and water pollution regulations.

Until recently, land has always been plentiful and cheap. However, it can no longer be perceived as a natural sponge which is able to digest and cleanse itself of disposed wastes. Paradoxically, the great prosperity brought about by American industry since World War II has produced a tremendous volume of wastes, some of which have had adverse effects, and some of which could conceivably have caused environmental and public health problems.

The Carter Administration reacted to these growing concerns with introduction of "superfund" legislation last year. What makes the fund "super" is its sweeping nature; the proposal is ambitious and far-reaching in its scope and its funding and liability schemes. While there is plainly a need for some kind of response to the problem of hazardous wastes, the proposal by the Carter Administration and its subsequent initiatives may be more hazardous than the wastes themselves.

The Carter Administration and environmentalists seek a single comprehensive "superfund" large enough to deal with all hazardous substances (disposal sites, oil spills and chemical spills).

^{1.} See Louis J. Cordia, "OSHA and Environmental Health," Heritage Foundation Backgrounder No. 116, April 21, 1980.

The complexity of the hazardous waste problem has become glaringly apparent as Congress has tried to come to grips with the intricacies of "superfund." The Congress cannot find common ground for a fair and equitable solution. The House and Senate have completely reversed themselves each time a proposal moves from subcommittee to full committee and, by sequential referral, to other committees.

The several major pieces of legislation would create a fund anywhere from \$100 million to \$4.1 billion, financed totally or in part by industry and government (federal and state), to pay for clean-up of any or all hazardous waste disposal sites, oil spills and chemical spills, and in some cases for compensation of victims allegedly injured by these substances.

Despite these irreconcilably different approaches to dealing effectively with hazardous substances, Congress may still pass some form of "superfund." For a Congress already beset by budget overruns, it would be attractive if not irresistible in an election year to create a stringent and expensive "superfund" financed primarily by industry.

Regretably, no economically sensitive initiative exists. Instead, "superfund" proposals charge industry not because they necessarily are responsible for hazardous effects or wastes, but simply due to association with wastes that eventually could have hazardous effects.

PROPOSALS

The full House will soon act on two bills that would create "superfunds" to clean up oil and chemical spills (H.R. 85) and inactive hazardous waste disposal sites (H.R. 7020). Meanwhile, the Senate Finance and Commerce Committees completed their hearings last week on the all-encompassing version (S. 1480) as reported by the Environment and Public Works Committee.

With an October 4 adjournment rapidly approaching, it seems less and less likely that the drastically different approaches of the two Houses will first pass and then be reconciled in conference. However, Congress may fall back on the looming lame duck session to work out the differences this year.

- H.R. 85 (Comprehensive Oil Pollution Liability and Compensation Act) would establish two funds, evenly splitting \$750 million, to clean up oil and hazardous substances (chemical) spills and, in certain circumstances, to compensate victims of such spills.
- H.R. 7020 (Hazardous Waste Containment Act of 1980) would set up a \$1.2 billion fund to clean up abandoned hazardous waste (chemical) sites without provisions to compensate victims.
- S. 1480 (Environmental Emergency Response Act) is much more far-reaching than either House bill or the Carter Administration

proposal. It would establish the most expensive fund (\$4.1 billion) which would deal with the most broadly defined hazardous substances and would impose the strictest liability coverage, including victim compensation.

House Action:

On H.R. 85, the Ways and Means Committee substantially modified the funding mechanism. It converted the administrative-ly adjustable fee system to a fixed excise tax. Concerned about unlimited liability, the Committee's second major change was to strike three of the claims categories authorized by the Merchant Marine Committee bill: (1) loss of the use of real or personal property; (2) loss of tax revenue; and (3) loss of the use of natural resources.

On August 21, two major changes were made to the Ways and Means amendments. First, petrochemicals used as fuel were exempted from the excise tax. Secondly, all persons (not only fisherman, the sole exemption allowed by Ways and Means) were entitled to compensation up to two years of income lost due to spills.

Before the changes by Ways and Means, the Merchant Marine and Fisheries Committee reported H.R. 85, which created a \$200 million fund entirely financed by industry to clean up oil spills. Two key provisions which remain part of the proposal prevent states from establishing similar funds and provide a mechanism to seek repayment from responsible parties.

A year after the Merchant Marine Committee reported the oil spill bill, the Public Works and Transportation Committee added hazardous substances (chemical) spill provisions. Essentially, the difference was a separate \$100 million fund tacked onto H.R. 85 to finance clean-up of these other spills.

The Comprehensive Oil Pollution Liability Trust Fund and the Hazardous Substance Pollution Liability Trust Fund would absorb or replace several other federal funds relating to oil and hazardous substance clean-up and liability.

Regarding H.R. 7020, there were not many changes made, but they were significant. The Ways and Means Committee doubled the size of the fund from \$600 million to \$1.2 billion (which, incidentally, was the amount in the legislation that was first introduced). At the same time, it increased industry's contribution from 50 percent to 75 percent.

Senate Action:

Both the Finance Committee and the Commerce Committee requested that S. 1480 be referred to them after it was reported by the Environment Committee.

Last week, both Committees completed their separate hearings. It is uncertain what steps will be taken next. Finance was

concerned about the tax-raising provisions while Commerce wished to see how the proposal affected existing transportation laws and regulations regarding oil and chemical spills. The Finance Committee has the choice of either getting referral and then marking up the bill or reporting it out of committee with amend-Commerce, on the other hand, can choose only between a floor fight over jurisdiction and merely reporting the bill out of committee with amendments. It cannot mark up S. 1480 because it has not proved that it has jurisdiction over the bill.

A breakdown of the proposals follows.

| Title | H.R. 85 Comprehensive Oil Pollution Liability and Compensation Act | H.R. 7020 Hazardous Waste Containment Act of 1980 | S. 1480 Environmental Emergency Response Act |
|---------|---|--|---|
| Purpose | to provide a comprehensive system of liability and compensation for oil spill damage and removal costs. | to amend the Solid Waste Disposal Act to provide authori- ties to respond to releases of hazardous waste from inactive, hazardous waste sites which endanger public health and the environment; to establish a Hazardous Waste Response Fund; to establish pro- hibitions and require- ments concerning inactive hazardous waste sites; to provide for liability of persons respon- sible for releases of hazardous waste at such sites. | to provide for liability, compensation, clean- up, and emergency response for hazardous substances released into the environment and the clean-up of inactive hazardous waste disposal sites. |
| Scope | oil and hazardous | inactive hazardous | all substances |

substance (chemical) waste disposal sites. spills into navigable waters

defined under sections:

- 112 of the Clean Air Act
- 307 & 311 of the Clean Water Act
- 3001 of the Resource Conservation and Recovery Act (Subtitle C of the Solid Waste Disposal Act)
- 7 of the Toxic Substances Control Act

- in addition to a hazardous substance generically defined as follows:

"any element, substance, compound, or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, behavioral abnormalties, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring."

Funding
- Size,
Duration,
and Contribution (%)

\$375 million (oil) and \$375 (hazardous substances) (chemicals)) over 5 years with 100% from industry. The new funds absorb or replace other federal funds. (Offshore Oil Pollution Compensation Fund, the Trans-Alaska Pipeline Liability Fund, the Deepwater Port Fund, and the Section 311 revolving fund of the Clean Water Act.)

Previously the Merchant Marine & Fisheries Committee recommended a \$200 million fund (oil) \$1.2 billion over 5 years with 75% from industry and 25% from the federal government.

(Previously: the Commerce Committee recommended \$600 million over 4 years with 50% from industry and 50% from the federal government)

\$4.1 billion over 6 years with 88% from industry and 12% from the federal government.

| H.R. | 85 | (Cont.) |
|------|----|---------|
| | | |

H.R. 7020 (Cont.)

S. 1480 (Cont.)

and the Public Works Committee recommended a \$100 million fund (chemicals)).

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determined at the tax rates below:

crude oil - 1.3 cents per barrel of crude oil hazardous substances - \$1.18 per ton on specified petrochemical feedstocks and 31 cents per ton on specified inorganic feedstocks

the revenues to be produced are estimated as follows:

FY 81 - \$138 million

oil - \$69 million

petrochemical
feedstocks \$46 million

inorganic feedstocks \$23 million

FY 82 through 85 - \$150 million per year or \$600 million

oil - \$75 million

petrochemical feedstocks - \$50 million

inorganic feedstocks \$25 million

determined at the tax rates below:

crude oil - 0.6 cents
per barrel

specified petrochemical feedstocks - \$2.54 per ton

specified inorganic feedstocks - \$2.33 per ton

the revenues to be produced are estimated as follows:

FY 81 - \$164 million

oil - \$32 million

petrochemical feedstocks -\$99 million

inorganic feedstocks \$33 million

FY 82 through 85 - \$179 million per year or \$716 million

oil - \$35 million

petrochemical feedstocks - \$108 million

inorganic feedstocks \$36 million

determined administratively, the annual fees may not exceed:

crude oil - 3 cents per barrel

primary petrochemicals \$20 per short ton

inorganic raw materials \$10 per short ton

the revenues to be produced are estimated as follows:

FY 81 - \$250 million

oil - \$38 million

primary petrochemicals \$162 million

inorganic raw
materials - \$ 50 million

FY 82 - \$525 million

oil - \$75 million

primary petrochemicals \$338 million

inorganic raw materials \$112 million

FY 83 through 86 -\$700 million per year or \$2.8 billion 7

oil- \$100 million

primary petrochemicals \$450 million

inorganic raw materials \$150 million

in addition to: federal appropriations in addition to: federal appropriations

FY 81 - \$50 million FY 82 - \$75 million FY 83 - \$75 million FY 84 \$100 million FY 85 - amount authorized but not yet appropriated FY 81 - \$35 million

FY 82 - \$75 million

FY 83 through 86 - \$100 million

Liability

strict, joint and several liability for owners and operators of vessels and facilities.

Liability was limited to include:
(1) removal costs,
(2) injury to, or destruction of, real or personal property,
(3) injury to, or destruction of, natural resources, and (4) certain losses of opportunities to harvest marine life due to injury to, or destruction of, natural resources.

A person would be allowed to file claims against the fund for 2 years of lost income due to destruction of livelihood, with some limitations.

strict, joint and several liablity for persons who caused or contributed to a release or threatened release.

However, if the defendant (owner, operator, generator or transporter) establishes that only a portion of the damages is attributable to his waste, then he is liable only for such portion.

Also, there is no compensation to persons whose health is affected by releases.

Lastly, liability is not retroactive.

strict, joint and several liability for all damages which result from the release of hazardous substances (unless the defendant can demonstrate that his action was not a "significant" factor in causing or contributing to the damage).

Liability will be imposed on manufacturers, users, transporters, treaters, storers, disposers, and releasers of hazardous substances for all removal costs and all damages for economic loss or loss due to personal injury or loss of natural resources (including third party damages).

By definition they will be considered engaged in "ultrahazardous activities." Liability is not retroactive

Also, it provided that victims may sue responsible parties in federal courts and that when a plaintiff has shown a "reasonable likelihood" that the disease resulted from a toxic substance, a "presumption" is created in his favor so that his case cannot be thrown out of court on purely procedural grounds.

Liability is not retroactive except for personal injury and then only back to January 1, 1977.

Defenses

when the cause of a spill is (1) an act of war, (2) a natural phenomenon of an exceptional, inevitable and irresistible character, which could or avoided by the exercise of due care or foresight, (3) an act of or omission of a third party and (4) due to gross negligence or willful miscondut of the claimant.

where the release or threatened release is caused by: (1) an act of war or act of God, (2) negligence on the part of the federal government, not have been prevented (3) an act or ommission of a third party (so long as the defendant establishes that he exercised due care), and (4) any combination of the aforementioned.

when a person can prove that the discharge, release, or disposal was caused by an act of war or an act of God.

(For additional information, see the appendix to this paper.)

BACKGROUND

Oil and Hazardous Substances:

Because a number of federal and state, along with international, oil spill liability and compensation mechanisms have been established, a single federal program seemed needed to replace the piecemeal approach. In addition, highlighting the oil pollution problem were the 1967 Liberian tanker "Torrey Canyon" which

grounded off the coast of England, the 1969 Santa Barbara blow-out of an oil well, the 1976 grounding of the "Argo Merchant" off Nantucket Island, the 1978 wreck of the carrier "Amoco Cadiz" off the coast of France, and last year's Campeche Bay runaway oil spill.

At the federal level alone, the Federal Water Pollution Control Act Amendments of 1972 addressed clean-up of oil spills and established a \$35 million fund with limits of liability. Three other laws include their own specialized provisions. The Trans-Alaska Pipeline Act of 1973 established a \$100 million fund for clean-up and damages resulting from oil spills associated with the pipeline; the Deepwater Port Act of 1974 set up another \$100 million fund for those damages caused by deepwater port operations; and the Offshore Oil Pollution Fund established in 1978 providing \$200 million for damages resulting from offshore facilities on the Outer Continental Shelf.

Although these funds collectively provide for liability and compensation for both oil and hazardous substances, they do not provide protection of persons who may be injured.

For years, Congress has attested to the need for a comprehensive uniform liability and compensation statute, but has failed to complete action. In 1976, the House adjourned before it could vote on H.R. 14862, which provided a comprehensive system covering inland waters as well as ocean-related spills. Again, in 1978, the Senate adjourned without taking action on legislation significantly amended by the House to accommodate concerns of the Environment and Public Works Committee. The major disagreement was over whether hazardous chemical spills should be covered by the bill.

Hazardous Waste Disposal Sites

After focusing on air and water pollution problems in the 1970s and on future land pollutants in the Resource Conservation and Recovery Act of 1976, Congress began to realize that it had neglected consideration of inactive hazardous waste sites. As the disposal sites, especially Love Canal, received national attention, congressional concern grew over the magnitude of the problem.

First, a private contractor hired by the Environmental Protection Agency (EPA) conducted a study to determine the number of inactive hazardous waste sites. In 1979, he estimated that there were 32,000 to 50,000 disposal sites scattered throughout the country and of those, 1,200 to 2,000 may be posing a serious risk to public health. Causing even more concern than this great number of potential hazards was EPA's charge that 90 percent of the waste now generated is being handled in an "environmentally unsound manner."

The number surveyed by the House Commerce Subcommittee on Oversight and Investigation was much smaller. Late last year, it released results that found 3,383 sites were created by 53 companies which operated 1,605 facilities and disposed of 765 million tons of chemical wastes. Clearly demonstrated was the need for a national accounting of on-and-off site, as well as active and inactive, disposal sites. Too many abandoned sites were found at such places as tennis courts, church parking lots, cemetaries, and abandoned oil wells.

Thirdly, the Chemical Manufacturers Association released preliminary results earlier this year from inventories in 33 states. The states identified 4,196 waste disposal sites of which 431 may be hazardous. In addition, the states found only 174 orphan sites which may or may not be hazardous.

No one really knows how many hazardous sites there are in this nation; and the estimates' wide variance confirms the uncertainty. However, it appears that no matter how many there are, the fact is that they will be perceived to be as dangerous as the horror stories making headlines. The ten stories below are representative in the public mind.

Love Canal - Niagara Falls, New York

During the 1940s, the Hooker Chemical Company, a unit of Occidental Petroleum Corporation, dumped wastes into a canal on the edge of the city of Niagara Falls, New York. In 1953, the site which had been capped with clay was acquired by the city which built a school and playground on top of it. Houses were built alongside it, the construction of which apparently damaged the cap.

After many years, foul-smelling liquids and sludge appeared in nearby basements. Tests were run and revealed toxic chemicals. The State Health Department found serious health problems in the area: miscarriages and birth defects were three times the normal level and there was a high incidence of liver disease. In August 1978, the state declared the canal an imminent health hazard, closing the school and evacuating 235 families nearest the site. The same month, President Carter declared Love Canal the first official national disaster area caused by toxic chemicals. Again on May 21, 1980, President Carter declared a federal emergency and 710 more families were moved to temporary housing.

Valley of the Drums - West Point, Kentucky

In 1978, an abandoned waste site known as "Valley of the Drums" contained some 20,000 decomposing chemical drums, some of which were found floating in streams feeding into the Ohio River.

Montague, Michigan

Hooker Chemical Company agreed to pay \$15 million for cleanup of some thirty toxic chemicals it had been dumping for thirty years on its 880-acre plant site. Traces were found in nearby White Lake and water wells.

Elizabeth, New Jersey

In April of this year, ironically on the day the tenth anniversary of Earth Day was being celebrated, a fire broke out at an abandoned site for highly explosive wastes dumped by the Chemical Control Corporation. Estimated clean-up costs are set at \$10-\$15 million.

Hardeman County, Tennessee

During the 1960s, 300,000 drums of pesticide waste were dumped in unlined trenches in the town of Toone. The local wells were contaminated by chlorinated hydrocarbons. Residents have responded with a \$2.5 billion damages claim.

Woburn, Massachusetts

Merriman Chemical Corporation, Monsanto, Stauffer and others used this 800-acre site for their hazardous wastes. Since the State Health Department has found the city's cancer death rate sharply higher than the state's as a whole, and since children's leukemia is higher than normal, the residents have displayed very deep concern. Some substances that have been discovered are explosive methane gas, arsenic, chromium, lead, and trichloroethylene, which contaminated two nearby municipal water wells.

Jackson Township, New Jersey

Investigation of a state-licensed, town-owned landfill revealed evidence of chemical dumping and contamination of nearby wells. Residents have reported a high incidence of kidney problems, rashes, and premature deaths. The site has been closed and a new water system has been planned.

Charles City, Iowa

Arsenic and benzene have seeped into the valley aquifer (underground stream) which supplies drinking water to one-third of the population in the state. Salisbury Laboratories, which created the five-acre dump site, is cooperating with the federal government to seal the site, but more containment may cost far above what this small, family-owned company can afford.

Warren County, North Carolina

In 1978, "midnight dumpers" sprayed 32,000 gallons of waste oil contaminated with highly poisonous PCB's (polychlorinated biphenyls - heat resistant chemicals once widely used in high-temperature manufacturing devices such as electrical transformers) along 250 miles of rural roads. The state now has to dispose of 40,000 tons of contaminated soil.

Curtis Bay, Maryland

PCB's are now stored in a federal supply depot at Curtis Bay, just south of Baltimore. The state circuit court cleared the way for storage of the 30,000 gallon shipment from an abandoned tank farm in Sharptown, Maryland, to the new site over the objections of local residents. The chemicals will be destroyed before their removal date of January 1, 1981 in incinerators under construction at either Deer Park, Texas or Elwood, Arkansas.

Beyond a doubt, these tragic stories have caused many hardships. Love Canal is the most infamous, but even it is not a clear-cut case of corporate disregard for the environment and public health. Twenty-five years ago, when the area was owned and used as a dump site by Hooker Chemical Company, it was threatened with seizure through eminent domain by the city of Niagara Falls. Consequently it deeded the property to the school board in 1953, warning that chemicals were buried there. the school board put the land up for sale, Hooker issued a second warning: construction could disturb the clay covering over the chemicals. The courts will decide if Hooker gave enough warning, but they will also have to determine how much responsibility should be placed on the United States Army and the local government for also dumping wastes in the Love Canal area.

Love Canal, nevertheless, instills fear in people living near other dumpsites. Curtis Bay is a good example of communities that are fearful of a "Love Canal" in their backyards.

ALTERNATIVES

Currently, there is a shortage of site disposal facilities. In the next few years, the situation will be exacerbated, as old, improperly disposed wastes require careful disposal, as new wastes are generated, and as strict new federal regulations are issued and enforced.

Some companies have been exploring the possibility of shipping the wastes overseas. But this suggestion has met with stiff opposition from the federal government because of the potential impact on international relations. Another way to solve the siting problem might be to locate dumps on public land. But this plan would soon meet opposition from the communities designated to receive the wastes.

Ironically, technology, the source of the problem, seems to provide the best solution.

Recycling and incineration offer the best choices, for they eliminate wastes and the natural costs associated with future monitoring and future liability. Given proper controls, these two approaches can be the safest, cleanest and most effective way to dispose of hazardous wastes. Thus far, however, neither

option has been economical for industry to undertake. In the past, the cost of recycling materials has generally been much greater than the cost of new materials; and incineration is the most expensive and energy-intensive disposal method. Critics of the "superfund" approach argue that the government should focus more of its attention on making these methods cost-effective than on establishing a "superfund" to pay for past practices condoned during their time.

Other disposal methods to consider could be deep-well injection where liquid wastes can be drained or pumped into underground cavities that are well below the earth's surface. Although economical, these wells must be located in geologically stable areas well below usable groundwater supplies. Such guarantees cannot be made for it is unknown what the process may cause.

Chemical fixation is another approach, mixing certain chemicals together to form a cement-like material that can be dumped in unlined landfills. The costs of solidifying these wastes are at present relatively high.

Despite the many alternatives currently available to dispose of hazardous wastes, there are a great many materials that are too low in value to recycle, nonflammable so that they cannot be incinerated, too thick to inject into deep wells, and of a particular substance so that they are impossible to chemically fixate. For most of these materials, one of the last disposal methods is burial in a secure landfill.

The problem then is to make the landfill secure. Previously, the cost was low because the technology was simple. Typically, a hole was dug and lined with clay; it was filled with chemicals, and then it was covered with clay to keep out rain and other water which can cause leaching. Rain falling on the surface or liquids in the waste can seep into the ground and carry contaminants, thereby threatening groundwater supplies.

The costs will rise when the effects are felt from the new regulations proposed by EPA under the provisions of the Resource Conservation and Recovery Act of 1976. In effect this past spring, they set specific standards for construction and operation of the site. They also discourage use of landfills for liquid wastes and ban use of certain volatile and flammable materials. Above all, they require monitoring of the landfill for twenty years.

CONCLUSION

All three bills (H.R. 85, H.R. 7020, and S. 1480) have tremendously different approaches to the question of who will pay, how much, and for what. The final version forwarded by Congress dealing with these three concepts of liability, funding and scope will undoubtedly lack cost sensitivity for the sole

sake of hurriedly passing some form of "superfund" in this election year.

Careful deliberation might result in at least a separation in H.R. 85, so as to treat the carbon-copy hazardous substance fund differently than the oil pollution fund. Toxicity of hazardous substances and their removal are worlds apart from oil products, for example. The quantities transported even vary tremendously. It is easy, but unfair to treat them the same.

In essence, oil spills, hazardous substance spills, and inactive hazardous waste sites should be considered separately given, for one, their varying physical properties.

A prudent approach to funding the inevitable industry contribution to "superfund," especially as it relates to hazardous waste sites, would be to build in economic incentives. For example, by placing a fee or tax on wastes at the point of disposal, a charge with a sliding scale based on the potential hazard (the toxicity) of the waste, the government would encourage industry to seek more economically feasible alternatives such as recycling or incineration.

Lastly, any liability scheme besides the strict, joint and several provision would be an improvement. With its imposition, a person with even a peripheral connection to the damage caused by a substance could be held responsible for all costs.

However Congress resolves these issues, it is important to try to achieve the goal of reducing hazardous wastes and their adverse effects at the same time it balances economic variables which consider the consequences such actions will have on industry.

Reaching down into the "deep pockets" of industry, especially with regard to the limitless compensation to victims allegedly injured because of exposure to hazardous substances, just may result in another "welfare" program that drives industry bankrupt as it is doing to the federal government.

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APPENDIX

House Report 96-172, Parts I, II and III, House Report 96-1016, Parts I and II, and Senate Report 96-848 define petrochemical feedstocks (in H.R. 85) to be any of the following substances:

Ethylene, propylene, butylene, butadiene, butane, propane, benzene, toluene, xylene, napthalene, methane, carbon black, and ethane.

Inorganic feedstocks will be:

Arsenic, cadmium, chromium, lead, mercury, and the equivalent weight of the foregoing elements in arsenic trioxide, chromite, chromic acid, sodium dichromate, potassium dichromate, lead oxide, chlorine, hydrochloric acid, hydrofluoric acid, and the equivalent weight of bromine in methyl bromide and ethylene dibromide, phosphoric acid, sulfuric acid, nitric acid, potassium hydroxide, sodium hydroxide, ammonia and the equivalent weight of ammonia in ammonia nitrate.

In H.R. 7020, petrochemical feedstocks will mean any of the following substances:

Ethylene, propylene, butylene, butadiene, butane, benzene, toluene, xylene, napthalene, and methane.

Inorganic feedstocks will be:

Arsenic and the equivalent weight of arsenic in arsenic trioxide, cadmium, chromium and the equivalent weight of chromium in chromite, sodium dichromate, potassium dichromate, lead and the equivalent weight of lead in lead oxide, mercury, the equivalent weight of barium in barium sulfide, antimony and the equivalent weight of antimony in antimony trioxide and antimony sulfide, cobalt, nickel, the equivalent weight of tin in stannic chloride and stannous chloride, chlorine, the equivalent weight of fluorine in hydrofluoric acid, bromine, the equivalent weight of hydrogen in phosphoric acid, sulfuric acid, hydrochloric acid, or nitric acid, and elemental phosphorous.

Lastly, S. 1480 defines primary petrochemicals to be any of the following substances:

Acetylene, benzene, butane, butylene excluding that portion used to make butadiene, butadiene, ethylene, methane excluding that portion used to make ammonia and ethylene, napthalene, propylene, toluene excluding that portion used to make benzene, and xylene.

Inorganic raw materials will be:

Antimony and the equivalent weight of antimony in antimony trioxide and antimony sulfide, arsenic and the equivalent weight of arsenic in arsenic trioxide, the equivalent weight of barium in barium sulfide, cadmium, chromium and the equivalent weight of chromium in chromite and potassium dichromate and sodium dichromate, cobalt, copper (with some exceptions), lead and the equivalent weight of lead in lead oxide, mercury, nickel, the equivalent weight of tin in stannic chloride and stannous chloride, zinc and the equivalent weight of zinc in zinc oxide, chlorine, bromine and the equivalent weight of fluorine in hydrogen fluoride, phosphoric acid, sulfuric acid, hydrochloric acid, nitric acid, potassium hydroxide, sodium hydroxide in hydrogen fluoride, elemental phosphorous and ammonia excluding that portion used to make nitric acid.