Mr. MONDALE(for himself, Mr. KENNEDY, Mr. McINTYRE, Mr. METCALF, Mr. MUSKIE, Mr. PASTORE, and Mr. RIBICOFF):

S. 2892. A bill to amend the Economic Stabilization Act of 1970. Referred to the Committee on Banking, Housing, and Urban Affairs.

Mr. MONDALE. Mr. President, this week the December Consumer Price Index figures were released, and they made for their usual sad reading. Once again, paced by increases of 11 percent for home heating oil and 4.4 percent for gasoline, inflation took its toll on the Nation's economy. Once again, the American working family had to absorb another decline in purchasing power, a decline which last year reached 3 percent.

There are, obviously, a variety of causes for this inflation. Food prices continue to rise, and the cost of industrial commodities shows no sign of slowing their rapid advance. The Nixon administration, nevertheless, seems intent on phasing out or eliminating controls by the expiration of the Economic Stabilization Act at the end of April.

Yet there is little doubt that in a least one area, controls on prices are desperately needed. Since the beginning of November, the Wholesale Price Index for refined petroleum products has jumped an astounding 60.9 percent. For all of 1973, crude oil prices on the wholesale level rose by 27.5 percent, while refined product prices were up by 125 percent.

I believe that there is no question as to the need for an immediate freeze and rollback in domestic crude oil and refined petroleum product prices. Since the beginning of 1973, the price of "old"—price controlled—crude petroleum has risen from about $3.50 per barrel to $5.25 per barrel. Included in this increase was an increase of $1 per barrel, allowed by the Cost of Living Council on December 19, 1973, which resulted in an increase of revenue to the oil companies of $3 billion per year without any promise of increased domestic production.

In the same time period, the price of "new"—decontrolled—domestic crude oil has more than tripled, to a current level of about $10 per barrel. These increases have resulted in additional revenues to the oil companies of this country of approximately $6½ billion per year.

In each instance—both for new and old domestic crude oil—the bulk of the increases have occurred since the beginning of the Arab oil embargo. In spite of the fact that production costs for domestic crude oil have risen only slightly in the period since the embargo began, prices of old oil have been allowed to rise by $1 per barrel and prices of new oil have shot up from levels of about $5.75 just before the embargo began to the current $10 per barrel figure.

There simply is no justification for price increases of this magnitude. They are costing consumers in this country tens of billions of dollars in higher prices, and are resulting in windfall profits to the oil producers of this country.

(4)

And, significantly, many within the oil business itself over the past year have indicated that they regarded prices of $5 to $6 per barrel as adequate to stimulate the new domestic exploration of oil in which we are all interested.

In July of 1972, Business Week reported that:

Higher prices, of course, are what the oil industry has been seeking in its efforts to tap "secure" but often marginal domestic energy sources. "If the price of domestic crude moves up a bit more," says John G. McLean, chairman of Continental Oil Co., "we can get at some additional reserves and produce them economically." He calculates that deeper drilling in older oil fields—tertiary recovery—will be economical when domestic crude rises to $4 a barrel, from its present average of $3.40. Rising oil prices will also bring "synthetic" fuels into economic range. McLean figures that Alberta's big deposits of Athabasca tar sands could be processed into crude oil at a commercial rate when the price of regular crude reaches about $5 per barrel—McLean believes, too, that vast shale oil deposits in the Western States could be tapped economically at prices of $5 to $6 per barrel.

On October 24, 1973—when the price of old crude was $4.25 per barrel and the price of new crude was about $5.50—John E. Swearingen, chairman of the Standard Oil Co. of Indiana, stated that:

Recent increases in the prices of domestic crude oil and natural gas have provided additional incentives and additional funds for intensified exploration for new supplies of oil and gas. Our company has embarked upon the most extensive exploration and development program in its history with particular emphasis on the U.S.

The Petroleum Independent, the magazine published by the Independent Petroleum Association of America, in its November 1973 issue quoted a Houston producer-geologist as saying:

There's no doubt that prospects are for increased drilling. Everybody I know is planning on it. With new oil prices from $5.30 to $6.00 per barrel, there's incentive now to go looking for oil.

And the same issue of that magazine quotes another producer-geologist:

The oil price rise is definitely a healthy sign. I've never seen so much outside investor money available for drilling. It wouldn't be difficult for one geologist to raise more money than he can intelligently spend.

All of these statements point to the fact that while the oil industry stated that they needed higher prices in order to encourage domestic exploration, even they consistently indicated that prices for "new" oil of $5 to $6 per barrel would be most sufficient to encourage additional domestic exploration and development of our oil resources.

These prices for "new" oil were the prices prevailing on or about November 1, 1973, before the Arab embargo began to exert its effects on domestic oil prices.

Quite simply, there is no reason why unconscionable increases in prices abroad—prices not set in response to free market forces—should be used as the excuse to raise prices on domestic oil production to embargo-induced levels.

I am therefore introducing legislation today to direct the President to implement an immediate price freeze on all domestic crude petroleum and petroleum products, and, within 30 days thereafter, a rollback of such prices to the levels in existence on November 1, 1973.

This legislation attempts to retain the vitally needed price incentive on "new" oil necessary to induce increased domestic oil production, while at the same time removing the windfall price increases which have resulted from increased domestic prices induced by the Arab oil embargo.

In addition, it would roll back the inexcusable $1 per barrel increase which the Cost of Living Council allowed on "old" oil on December 19, 1973. This increase—from $4.25 per barrel to $5.25 per barrel—represented an added cost for American consumers of $3 billion per year. And yet the oil industry made no promises for increased production resulting from this price increase on the same oil on which they were making handsome profits 1 year ago at $3.50 per barrel.

The legislation also allows the President to make exceptions necessary to prevent gross inequities and hardships, and to encourage and preserve the competitive viability of the independent sector of the oil industry.

Finally, it would require that the President issue rules to insure that all sales of crude petroleum at the refinery level or petroleum products at the wholesale level reflect, in sales to any purchaser, the average costs of its foreign and domestic crude oil and petroleum products.

This is designed to cope with a number of current problems.

First, it should prove of substantial benefit to the independent sector of the industry—particularly in the area of heating oil. At present, the major oil companies—which have both domestic and foreign crude oil sources—are selling the higher priced foreign oil to independent refiners and are selling refined products produced from foreign oil to independent wholesalers and marketers. This results in a competitive disadvantage to independents, who are now forced to sell their products at much higher prices than wholesale and retail outlets of the major companies, which are using their own supplies of lower-priced domestic oil to supply their own outlets. The resolution would put an end to this practice.

And second, it should provide relief to those geographic sectors of the country—in particular, the New England and Middle Atlantic States, the Upper Midwest and the west coast—which are more heavily dependent on foreign oil for their supplies, by requiring the producing companies to average foreign and domestic prices in all sales to spread price increases equitably throughout the Nation.

Mr. President, I believe that this legislation would enable us to increase the vital domestic oil supplies we all want to encourage, while insuring the American consumer a fair price for these products.

As compared to current prices, the rollback envisioned in this legislation would save American consumers $7 billion per year, while still providing a fair rate of return and profitability to the oil industry.

It is my expectation that this legislation, along with other similar legislation, will receive a speedy hearing in a number of Senate committees. Out of those hearings will hopefully emerge a strong congressional directive to roll back the exorbitant price increases on domestic oil and petroleum products and to ease the threat of soaring inflation, rising unemployment and a severe recession this year.

Mr. President, I ask unanimous consent that the text of this legislation be printed in the RECORD at the conclusion of my remarks.

There being no objection, the bill was ordered to be printed in the RECORD, as follows:

S. 2892

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, "The Economic Stabilization Act of 1970 is amended by inserting in section 203 the following new subsections:

(k) Immediately upon the enactment of this section, the President shall issue an order to establish a ceiling on prices of crude oil and petroleum products at levels not greater than the highest levels pertaining to a substantial volume of actual transactions by each business enterprise or other person during the fourteen day period ending January 19, 1974, for like or similar commodities, or if no transactions occurred during such period, then the highest applicable level in the nearest preceding fourteen day period.

(l) The ceiling on prices required under subsection (k) shall be applicable to all retail prices and to wholesale prices for unfinished, finished or processed goods.

(m) As soon practicable, but not later than 30 days after the date of enactment of this section, the President shall by written order stating in full the considerations for his actions, roll back prices for crude oil and petroleum products to levels no higher than those prevailing in the seven-day period ending November 1, 1973, in order to reduce inflation. Price increases announced after November 1, 1973, and made retroactive to dates prior to November 1, 1973, shall not be considered as having been in effect prior to such date for purposes of this subsection. The President may make specific exceptions from the rollback by written order to compensate for increased costs for crude oil and petroleum products produced or refined outside the United States, but in no event shall such exceptions allow more than a passthrough for increases in the costs of such commodities. Such orders shall state procedures and adequate public notice of any price exceptions and shall disallow any profit margins on any crude petroleum or petroleum products in excess of the margin applicable in the seven-day period ending November 1, 1973.

(n) The President may, by written order stating in full the considerations for his actions, make such additional exceptions and variations to the orders required under this section as may be necessary to prevent gross inequities and hardships, and to encourage and preserve the competitive viability of branded independent marketers, small refiners, nonbranded independent marketers, and independent refiners, as defined in the Emergency Peroleum Allocation Act of 1973 (Public Law 93–159).

(o) The President shall, by written order, issue rules to insure that all corporations or other entities engaging in sales of crude petroleum at the refinery level or petroleum products at the wholesale level reflect, in sales to any purchaser, the average costs of its foreign and domestic crude oil and petroleum products.

(p) Section 406 of Public Law 93–153 is hereby repealed.

(q) For purposes of this section, "petroleum product" means gasoline, kerosene, distillates (including Number 2 fuel oil), LPG, refined lubricating oils, or diesel fuel."

(5)

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Senate

By Mr. MONDALE:

S. 2906. A bill to amend the internal Revenue Code of 1954 to permit taxpayers to utilize the deduction for personal exemptions as under present law or to claim a credit against tax of $200 for each such exemption. Referred to the Committee on Finance.

$200 OPTIONAL TAX CREDIT TO AID FAMILIES, HEAD OFF RECESSION

Mr. MONDALE. Mr. President, I am today introducing legislation that would cut nearly $200 a year from the average family's tax bill by allowing taxpayers to take a $200 credit for themselves and each of their dependents instead of the existing $750 personal exemption.

This is the first of a series of bills I will be introducing to support and strengthen American families.

This new $200 credit would be optional. Anyone who wished to continue using the existing $750 exemption could do so. However, because the $200 credit would be subtracted directly from the final tax bill, it would be worth more in tax savings than the $750 exemption to almost all families earning $20,000 or less.

A family of four earning $8,000 a year would have $236 under this plan, while a family of the same size earning $15,000 would have $117.

Large families, of course, would save more. A family of six with an income of $8,000 a year would save $322, while a family of six earning $15,000 a year would save $187.

I ask unanimous consent that a series of tables showing the tax savings for families of various sizes at different income levels be printed in the RECORD at the conclusion of my remarks.

NEEDED TO MAKE UP FOR INFLATION, HIGHER TAXES

The relief this new tax credit would bring to low- and middle-income families is desperatley needed after the runaway inflation and higher taxes of 1973. The average working American was on an Alice-in-Wonderland treadmill last year. He had to work harder and harder just to stay in the same place.

A study just released by the Joint Economic Committee, for example, shows that a family with a budget of $12,614 had to pay an extra $1,168 just to maintain their 1972 living standards in 1973. In addition, that same family had to pay $281 more in social security and income taxes during 1973, a 15-percent increase.

The JEC study shows that low-income consumers were especially hard hit by last year's inflation—the worst in 25 years—since they had to spend more on necessities like food, housing, and fuel, where price increases were greatest. The price of food alone went up more than 20 percent last year, for example, while gasoline was up 19 percent and fuel oil and coal 45 percent.

Consumer prices as a whole went up 8.8 percent last year, while most workers were held to the administration's 5.5 percent wage guidelines. Not surprisingly, then, real spendable earnings—weekly pay adjusted for increases in prices and taxes—went down 3 percent during the year.

Another factor eating away at workers' paychecks was the little-understood inflation tax. When paychecks go up workers are no better off economically—they are just keeping even. But those wage increases put them into higher marginal tax brackets, and a bigger percentage of their income is taken in taxes—leaving them worse off. This inflation tax added about 8 or 9 percent to the average family's tax bill last year.

The new optional $200 credit I am proposing would help make up for this erosion in real family incomes.

NEEDED TO HEAD OFF RECESSION

The economy is headed into a recession, if we are not in one already.

Real GNP—total output corrected for inflation—rose at an annual rate of only 1.3 percent in the last quarter of 1973, and the outlook is for an actual decline in growth in the first half of this year.

This is the classic definition of a recession, and it could mean unemployment of 6 to 8 percent or higher—as many as 3 million additional Americans without jobs.

One of the most important factors in this threatened recession, economists say, will be a decline in consumer spending. With family budgets squeezed by higher prices for food and fuel, and higher income and social security taxes, consumers will have less real income to spend. Growing fear of unemployment and general economic uncertainty will put a further damper on consumer spending.

The best way to stimulate consumer spending and head off this impending recession is with a tax deduction. It worked in the early 1960's, and it can work again today.

But the administration—diverted by predictions of greater inflation in 1974—is apparently once again readying its standard Draconian remedy—a highly restrictive Federal budget, with a full employment surplus as high as $10 billion.

This is the wrong economic medicine. The inflation predicted for 1974 will be largely concentrated in food and fuel, and there is little that can be done about these prices by putting the economy through a recessionary wringer.

A tighter Federal budget will simply add a recession to the existing inflation.

The $200 optional tax credit I am proposing today would help to deal with the threat of recession by pumping $6.5 billion into the economy over the next year, directed toward those who have been hardest hit by rising prices.

Nearly $5 billion of the total amount of tax relief under this proposal—78 percent—would go to those earning between $5,000 and $15,000 a year. Another 12 percent would go to those making less than $5,000. By concentration 90 percent of the tax relief on those making less than $15,000, the proposal not only helps those most in need, but also provides the greatest amount of stimulus to our lagging economy.

Families in these income brackets must spend all—or more than all—of their income on everyday necessities, and have little left over to save. The tax relief they receive, therefore, will be immediately pumped back into the economy in the form of increased consumer spending. Only 1 percent of the relief under this proposal would go to those making more than $20,000, who tend to save a much larger percentage of their additional income rather than spending it.

I ask unanimous consent that a table showing the total distribution of tax relief by income category be printed in the RECORD at the conclusion of my statement.

To the extent it is required by economic conditions, the $6.5 billion revenue loss from this proposal can be recouped in later years by a tax directed toward the excess profits of the oil industry, together with long-overdue reform of foreign and domestic tax loopholes.

NEEDED FOR GREATER TAX EQUITY

This new optional $200 tax credit plan would also be a significant step toward greater tax equity and fairness.

Hearings on American families before the Subcommittee on Children and Youth—which I chair—have demonstrated the unfairness of the existing $750 exemption. While it is designed in large part to help families raise their children, it discriminates strongly against low- and moderate-income families.

The $750 exemption for dependents is much more valuable for the wealthy than it is for average Americans. It provides the most help to those who need it least, and the least help to those who need it most.

For those in the highest 70-percent bracket—making $200,000 a year and more—each $750 exemption is worth $525 in reduced taxes. But for someone in the lowest 14-percent bracket making around $5,000 a year, each $750 exemption is worth only $105 in reduced taxes.

I believe we need a more carefully structured approach. As I discussed earlier, last year's inflation hit low- and middle-income Americans the hardest, since they had to spend more on necessities like food, fuel, and housing, where price increases were greatest.

Furthermore, as I also discussed earlier, a proposal like the $200 optional credit which concentrates relief on those making less than $15,000 will stimulate the economy more effectively than proposals which concentrate more relief on the well to do, who tend to save more and spend less.

Mr. President, I ask that the text of the legislation appear in the RECORD at this point, along with the tables mentioned earlier and the text of a speech I made today at the Women's National Democratic Club discussing the proposal.

There being no objection, the bill and material were ordered to be printed in the RECORD, as follows:

S. 2906

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That (a) subpart A of part IV of subchapter A of chapter 1 of the Internal Revenue Code of 1954 (relating to credits against tax) is amended by redesignating section 42 as 43, and by inserting after section 41 the following new section:

"SEC. 42. PERSONAL EXEMPTIONS.

"There shall be allowed to an individual, as a credit against the tax imposed by this chapter for the taxable year, $200 multiplied by the number of personal exemptions provided that individual under section 151 for that taxable year."

(b) Section 151 of such Code (relating to allowance of deductions for personal exemptions) is amended by adding at the end thereof the following new subsection:

"(f) Election to Take Credit in Lieu of Deduction.—This section shall not apply in

the case of a taxpayer who, for the taxable year, elects to take the credit against tax provided by section 42 (relating to credit against tax for personal exemptions). The election shall be made in such manner and at such times as the Secretary or his delegate prescribes by regulation.".

(c) The table of contents for subpart A of part IV of subchapter A of chapter 1 of such Code is amended by striking out the last item and inserting in lieu thereof the following:

"Sec. 42. Personal exemptions.
"Sec. 43. Overpayments of tax.".

SEC. 2. The amendments made by this Act apply with respect to taxable years beginning after December 31, 1973.

TAX SAVINGS FROM MONDALE PROPOSAL

[Assumes personal deductions of 15 percent of income]

Adjusted gross income	Present tax	Tax with $200 credit	Tax saving
MARRIED COUPLE WITH 4 DEPENDENTS			
$5,000	0	0	0
$6,000	$28	0	$28
$8,000	322	0	322
$10,000	620	$290	330
$12,500	1,024	758	266
$15,000	1,435	1,248	187
$17,500	1,903	1,779	124
$20,000	2,385	2,340	45
MARRIED COUPLE WITH 2 DEPENDENTS			
$5,000	$98	0	$98
$6,000	245	0	245
$8,000	569	$333	236
$10,000	905	690	215
$12,500	1,309	1,158	151
$15,000	1,765	1,648	117
$17,500	2,233	2,179	54
$20,000	2,760	2,740	20
MARRIED COUPLE WITH 1 DEPENDENT			
$5,000	$208	0	$208
$6,000	362	$153	209
$8,000	706	533	173
$10,000	1,048	890	158
$12,500	1,463	1,358	105
$15,000	1,930	1,848	82
$17,500	2,416	2,379	37
$20,000	2,948	2,940	8
MARRIED COUPLE WITH NO DEPENDENTS			
$5,000	$322	$169	$153
$6,000	484	353	131
$8,000	848	733	115
$10,000	1,190	1,090	100
$12,500	1,628	1,558	70
$15,000	2,095	2,048	47
$17,500	2,604	2,579	25
$20,000	3,135	3,135	0
SINGLE PERSON			
$5,000	$491	$433	$58
$6,000	681	637	44
$8,000	1,100	1,078	22
$10,000	1,530	1,515	15
$12,500	2,059	2,059	0
$15,000	2,630	2,630	0
$17,500	3,249	3,249	0
$20,000	3,915	3,915	0

"Breakeven" points

(Adjusted gross income level at which the optional $200 tax credit is worth the same as the $750 personal exemption.)

Type of tax return and adjusted gross income level:	
Married couple with four dependents	$21,764.71
Married couple with three dependents	21,274.51
Married couple with two dependents	20,784.32
Married couple with one dependent	20,294.12
Married couple with no dependents	19,803.92
Single person	12,500.00

REMARKS OF SENATOR WALTER F. MONDALE

I would like to talk today about something that we all take for granted . . . the American family.

There is nothing more fundamental to the wellbeing and future of a nation than the health of its families.

Urie Bronfenbrenner, Professor of Human Development and Family Study at Cornell University put it best:

"It is no accident that in a million years of evolution we have emerged with a particular form for the raising of children and it is the human family."

Few Americans would disagree with that statement. Yet American families have come under increasing pressures in recent decades . . . as the pace of change has quickened . . . and life has become more impersonal And I'm afraid we are often better at paying lip service to the importance of families and children than we are at protecting the opportunities and options they need to succeed.

In the nearly nine years that I've spent in the Senate, I think I've spent as much time as anyone else there working on the problems of children especially disadvantaged children—and their families.

As a member of the Hunger Committee, and of the Education, Health, Poverty, Migratory Labor and Indian Education Subcommittees. I have struggled with the problems of preschool education, discrimination, health care, malnutrition and all the rest.

Like many of you, I've not only tried to read about the problems and listen to the experts. I've tried to see children and their families where they live and to listen to them. I have visited children who have been the victims of child abuse and seen the scars of their burns and beatings. I have talked to families who have lost a child through the unexplained tragedy of crib death. I have seen migrant mothers with their ricket ridden infants . . . and the empty eyes of Navajo children in federal boarding schools thousands of miles from their homes.

And the longer I work on specific problems and programs, the more convinced I am that we need to step back and take a look at the condition and health of American families as a whole.

We're beginning to take that look in a series of hearings by the Subcommittee on Children and Youth, which I chair. We are listening to some of the nation's most thoughtful, experienced observers of the family . . . Margaret Mead . . . Bob Coles . . .Urie Bronfenbrenner. . . Ed Zigler and experts from the Census Bureau. And we are listening to families directly.

We're finding that many families in this country are strong and healthy. Most are coping very well with the increasing pressures. But there are warning signals which we cannot ignore.

Today one out of every six American children lives in a single parent home.

Teenage alcoholism and drug abuse are growing problems.

Suicide among young people is increasing geometrically . . . it is now the second leading cause of death for young American between ages 15 and 24.

Delinquency is so pervasive that experts now predict that one out of every nine youngsters will have been to juvenile court by age 18.

And child abuse . . . most of which is inflicted on children by their own parents . . . is a widespread and apparently growing problem among all social and economic groups.

When we step back and take that long view, one fact emerges above all of the others. It is not just the families of the poor who are facing these increasing pressures although the poor often feel them most. These symptoms strike families from every background. Even in affluent homes . . . where a decent meal and a warm place to sleep are taken for granted . . . in too many cases, the cocktail hour has replaced the family hour . . . and watching television has often become the most common form of family activity.

The cold fact is that parents from all backgrounds are spending less and less meaningful time with their children. Urie Bronfenbrenner told us about one study which measured the amount of time a group of fathers spent interacting with their infants. The result is shocking . . . an average of 37 *seconds* per day.

Then he told us about a marvelous new product that could reduce this time even more for both mothers and fathers. It is called the cognition crib. He read its brochure to us:

"The crib is, the pamphlet said, equipped with tape recorders that can be activated by the sound of the infant's voice . . . Frames built into the sides of the crib permit insertion of programmed play modules for sensory and physical practice. The modules come in sets of six, which the parent is encouraged to change every three months so as to keep pace with the child's development."

These modules include six soft plastic faces . . . and something called ego bulding mirrors.

* * * * *

We simply cannont continue to ignore what is happening to American families. And I don't think it's enough just to blame the parents when something goes wrong. Responsibility to provide our children with a supportive upbringing *must* rest on those of us who are parents. But we have to realize that it is very hard to be a good parent in America, and it is getting harder every day.

Some of the difficulty stems from the dramatic changes in our society over the last century . . . toward giant cities . . . an economy based increasingly on giant corporations . . . and mass communication

But we must recognize, as well, the fact that in a whole host of different ways . . . unwittingly and often without even thinking about it . . . government policies are placing destructive burdens on families.

Perhaps the strongest message from our hearings concerned the need for financial security . . . and the growing economic squeeze facing so many American families.

Consider for a moment the tremendous pressure that run-a-way inflation has placed on so many American families . . . especially the working families who pay the largest share of taxes and bear the major burdens of making our economy run. Last year, the cost of living in this country rose almost 9% . . . the largest increase in over 25 years. Supermarket prices jumped 22%. Gasoline prices went up over 18% . . . fuel oil and coal over 44% . . . and we are told that there is no end in sight.

The recent study by the Joint Economic Committee shows that a family earning $12,000 a year lost over $1,000 in purchasing power last year because of inflation . . . and paid almost $300 in additional social security and income taxes. This inflation hits low income and working Americans . . . and large families . . . especially hard . . . because they must spend more on necessities like food, housing and fuel where price increases have been the greatest.

Incredibly, the 1968 dollar is now worth only 77c. And the long slide won't stop there.

Listen to what this means in human terms. Bob Coles, the Harvard Child Psychiatrist who has worked so closely with families, shared the following statement with our Subcommittee. The factory worker he talked with put it this way.

"Work, I have plenty of it—so much that it's my whole life. I work my regular shift, then I work overtime—whether I want to or not.

"Like I say to my wife, it's a bind, because we need the money, just to keep our heads above the water, but it means that I practically never get to see the kids, except on Sunday, and then I'm so tired I can barely do anything but sleep and eat and get ready for the next week. My wife is working too, she has to—or else we'd be drowning in bills. As it is, with the two of us working, we're still in trouble.

"I feel like a guy running hard just to keep in the same position. And let me tell you, it makes a difference at home: my wife

DECREASE IN TAX LIABILITY UNDER MONDALE PROPOSAL (BASED ON CALENDAR YEAR 1972 INCOME LEVELS)

Adjusted gross income class	Percent of returns in each income class [1]	Number of returns with tax decrease (thousands)	Decrease in tax liability (millions)	Percent of total decrease
$0 to $3,000	23.1	3,220.5	$165.8	2.6
$3,000 to $5,000	13.4	7,745.8	626.4	9.7
$5,000 to $7,000	11.9	8,736.8	983.3	15.2
$7,000 to $10,000	16.9	12,229.1	1,763.0	27.2
$10,000 to $15,000	19.6	15,045.2	2,280.8	35.3
$15,000 to $20,000	8.7	6,881.2	599.3	9.3
$20,000 to $50,000	5.9	1,017.6	$51.3	0.8
$50,000 to $100,000	.5	1.8	.2	
$100,000 and over	.15	.4	.1	
Total	100.15	54,878.5	6,470.1	100.1

[1] In calendar year 1971 (1972 data unavailable).

feels it, and so do the kids."

Families like this one have borne the full brunt of this Administration's economic mismanagement.

The Nixon inflation—the worst since World War II—has slashed into their budget for food, clothing and health.

And they suffered even more when the Administration tried to control inflation with high unemployment and the highest interest rates since the Civil War. Family breadwinners lost their jobs, and millions of middle income families could no longer afford to buy homes.

And now the Administration seems intent on going down this same futile road again. Their standard solution to soaring inflation is to throw the economy into a recession with a highly restrictive Federal budget.

According to Budget Director, Roy Ash, next year's Federal budget will show a full employment *surplus* of at least $5 billion. This is a prescription for a deeper recession and soaring unemployment, and it's more bad news for American families.

Some of the witnesses at our hearings suggested we adopt a children's allowance or family allowance . . . to help families cope with these economic pressures. They pointed out that most Western democracies including Canada and France have this kind of system.

The fact is our country already has what could be called a children's allowance or a family allowance. It is hidden in our income tax system and called the personal exemption. The problem is that the exemption provides the most help to those who need it least . . . and the least help to those who need it most. Because the size of your benefit depends on the tax bracket you are in, this $750 personal exemption provides up to $525 of tax relief for individuals in families making over $200,000 . . . but only about $150 in tax relief for individuals in the average American family.

This combination of inflation . . . high interest rates . . . restrictive federal budgets . . . and what might be called an upside down family allowance is placing tremendous pressures on American families.

And it is dangerous economic policy as well. I fear that the squeeze of higher costs and higher taxes on the budgets of working Americans could well lead to reduced consumer demand, economic recession and increased unemployment.

That is why I am introducing today legislation to cut about $200 a year from the average family's tax bill. My proposal will pump roughly $6½ billion into our economy over the next year and be directed to those who have been hit hardest by rising prices. And it will be a major step toward greater tax equity and fairness for average families.

Under my plan, each taxpayer will have the option of taking a $200 credit for themselves and each of their dependents . . . or continuing to use the existing $750 exemption. Because the $200 credit would be subtracted from the final tax bill, it would be worth more in tax savings than the $750 exemption to almost all families earning $20,000 or less.

A family of four, earning $8,000 a year would save $240 a year under this plan, while a similar family earning $15,000 would save $117.

And my proposal would provide even greater relief for larger families . . . the very ones who have been hit the hardest by inflation. A family of six, earning $10,000, for example would save about $330 a year under my bill.

In the first year, my bill will add a much needed stimulus to our economy in an effort to head off unemployment and recession. In later years, revenues from a tax directed toward the excess profits of the oil industry . . . together with reform of some of the most intolerable tax loopholes . . . will more than make up for the loss in tax revenues.

I believe there is a consensus developing about the need for this kind of measure. Just last week, for example, the Senate tentatively adopted and then rejected a $100 increase in the personal exemption. This would have provided about $3½ billion in tax relief. I supported that amendment because it was a good beginning toward tax relief. I am proposing a somewhat different plan—an optional credit—which provides more relief, and targets it on the families that need it most.

Our economic and tax policies are only one example of governmental policies that place pressure on families.

Our programs for families under strain sometimes unnecessarily break up families by encouraging placement of children in foster homes or institutions.

Over half our States have Welfare laws which require an unemployed father to leave his family if his wife and children are to be eligible for assistance.

Our public housing and urban renewel policies have too often destroyed neighborhoods and communities . . . or built huge new high rise slums.

And the transfer policies of our armed services clearly need to be reconsidered in terms of their impact on families and children.

Government policies like these need to be examined in terms of their impact on families. In addition to the bill I am proposing today, I hope to introduce a number of legislative proposals in coming weeks to support and strengthen American families.

I will propose a family impact statement . . . modeled in part after the environmental impact statement . . . designed to assess and anticipate in advance the effect of governmental policies on families. And I will offer family strengthening legislation as well in the areas of day care and child development . . . public service employment . . . and an increased minimum wage.

Proposals such as these could bring some long over-due support and relief to American families, but they will clearly only be part of the answer. The government doesn't have and shouldn't pretend to have the entire solution to the problems affecting American families. In some areas, changes in government polices could be very helpful.

But I certainly don't want a national policy of what I call Big Brotherism . . . in which the Federal government assumes that it knows best how children should be raised and how families should be structured.

We're learning, rather painfully, that government has an additional impact beyond its specific programs and policies. Those of us in public life are examples for many Americans. . . we do help set a moral tone for the nation and its families. And anyone who looks at the current moral and ethical mess in Washington must pray that not a single family ever adopts those standards as their own.

Bob Coles put it well: He pointed out the way in which a generation of children is being affected by the seemingly endless revelations surrounding Watergate:

"We would do well, he told us, to think about the sensitivity and responsiveness of children to the kinds of widespread and blatant and cynical corruption not only affected this Government but has also affect American families.

"When, Coles continued, those children and those parents who rear them can fall back on nothing but the kind of pervasive hypocrisy and two-faced preaching, that on one hand exhort law and order and on the other hand demonstrate lawlessness and corruption . . . then I say the American family is as jeopardized as it possibly can be. Because children watch television, and they read, and their parents read and watch television . . . and they all know what is happening about them."

I think Bob Coles issued a challenge to all of us who care about the strength of our nation and therefore the health of American families. He said in conclusion:

"So the Federal government cannot only do something about attempting to give working people and would-be working people of this country a better deal, but it can in very fundamental ways show by its own integrity a whole generation of families what it really does mean to be an American."

Senator Walter Mondale on CHILDREN'S CHARITIES

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CHILDREN'S CHARITIES

Mr. MONDALE. Mr. President, on February 4, 5, and 6 my Subcommittee on Children and Youth held the first of a series of hearings on the subject of children's charities. I was particularly interested in the testimony we received from representatives of national organizations which are trying to develop ethical standards for charitable organizations.

I request unanimous consent that the following items be printed in the RECORD: My opening statement, explaining the purpose of the hearings; the statement of Peter Falk, the television star who is the national chairman of the National Easter Seal Society; and the statements of Arthur J. Grimes of the National Health Council and Helen O'Rourke of the Council of Better Business Bureaus.

There being no objection, the material was ordered to be printed in the RECORD, as follows:

STATEMENT BY SENATOR WALTER F. MONDALE, CHAIRMAN, SUBCOMMITTEE ON CHILDREN AND YOUTH

During our lifetime, American charity has accepted the challenge of some of our most terrible problems. It has helped to virtually eliminate tuberculosis and polio . . . to feed millions of hungry children . . . to aid the crippled and disenfranchised . . . and to offer new hope and new life to countless victims of our society.

This morning the Subcommittee will hold its first hearing on a group of charities of particular interest and concern—charities which serve children and youth. I believe that American charity makes a vital contribution to the improvement of life for children and youth both here and abroad, and that our national policies should encourage these efforts. Over the next few months the Subcommittee will be exploring whether existing legislation is adequate to protect the interests of the beneficiaries of and contributors to these charities . . . and trying to determine if new legislation is needed.

During my ten years in the Senate, I have devoted a large part of my time to the problems of children and youth. I know only too well the horror of child abuse . . . the tragedy of an infant who dies of crib death . . . and the frustrations of a poor Indian child who does not get enough to eat . . . and of a black child who can't seem to get a decent education.

These problems have been with us for years. In the public, government sector, we have tried again and again to develop effective programs. Sometimes these programs have succeeded. Sometimes they have failed. But whatever we have done . . . it has not been enough. Illness, poverty, malnutrition are all still very much with us.

Private, charitable efforts for children and youth provide an essential complement to government activity. They provide much needed help to countless children. They offer millions of volunteers the opportunity to know the satisfaction of helping others. They offer contributors a clear choice to select a cause they wish to support.

In these hearings, the Subcommittee's primary concern will be for the children being served by charities and for the contributors who want to help them. After all, that is what charity is about: generous people on one side, needy people on the other side . . . and, between them, organizations that are supposed to be dedicated to serving the contributors and recipients.

If these two groups . . . the contributors and the recipients . . . are in any way being victimized or abused or exploited, the cause of charity in America is suffering.

I am very aware of the problems that confront charities trying to raise money for an admirable purpose. We know that they must spend money to raise money . . . that they must devote part of their resources to overhead and public relations.

On the other hand, I believe that contributors have a right to expect certain things of a charity . . . that the money they donate will be handled with reasonable care and for a charitable purpose . . . and that the children in whose name the money is raised will actually benefit.

Our witnesses today will help clarify what kind of services children receive through charity . . . how charities obtain funds from the public . . . and how much they spend on fund raising, general management and program services.

I am especially pleased to welcome and to introduce our first witness . . . Peter Falk . . . better known to some of you as "Columbo" . . . and known to the Subcommittee as the National Chairman of the National Easter Seal Society.

STATEMENT OF PETER FALK, 1974 NATIONAL CHAIRMAN, THE NATIONAL EASTER SEAL SOCIETY FOR CRIPPLED CHILDREN AND ADULTS

Senator Mondale, I am pleased to appear before you and your distinguished colleagues and give my views on the value and importance of children's charities as I see them. I am serving this year as National Campaign Chairman for the Easter Seal Society, which is the oldest and largest voluntary organization serving crippled children and adults.

My interest in children with problems goes back for many years. When I was asked to participate in an Easter Seal telethon in New York City, I was supposed to appear for a short time, perhaps a half hour. After arriving on the scene and learning about the services the organization renders to children, I stayed there for the full 20 hours that this program was on the air.

I guess you could say I was hooked.

Since that time, as National Chairman, I've had opportunities to become more fully acquainted with the programs of this organization through talking to many children and young adults who have benefitted from its services.

I realize that my personal involvement with the Easter Seal Society does not make me an expert in the area of child care or services. But it has enriched my experience and broadened my knowledge of what a volunteer organization serving children is trying to accomplish.

The case for children's charities is a very simple and straightforward one. There are many, many children who need help. The needs are so vast, that government cannot possibly meet the massive challenges alone.

This view was re-emphasized in a recent speech by the Secretary of HEW in which he stated that the government doesn't have all the answers to the myriad problems that exist in the health and welfare areas. He said—"we not only need the private sector to deliver the services, we need all the ingenuity and creativity that the private sector can muster to help us achieve our goals."

It is for these reasons that charities serving children have come into being. These organizations provide many types of services in the areas of health, education, welfare, adoption, foster home placement, prevention of child abuse, counseling, youth guidance, recreation and others.

This country has a deeply-imbedded tradition of volunteerism . . . a tradition we can be proud of. It has been said that a nation can be judged by the way it cares for its people. Certainly, children with problems are high on the list.

Throughout our history, the voluntary organizations have played a significant role in the building of this great nation. It was volunteers whose organized efforts built the churches, the hospitals, the libraries—who nursed the ill and who were the source of help in time of trouble.

Great advances have been made in the care of children which might not have been possible without the extensive network of charitable organizations. An added dimension is the channel such organizations offer to the millions of Americans who are eager to help and can do so through volunteer service.

In 1968 a survey was conducted by Roper Associates to substantiate whether there was any real concern or interest among Americans in volunteering to help solve some of the great social crises of their country. The results of the poll showed that 60 million Americans were deeply concerned and wanted to help.

More recently, in 1972, a New York market research firm conducted a nationwide survey in an effort to determine why people give to charities and how they choose the charities they wish to support. The results showed that more than 60 per cent of the people who give to charity do so out of a feeling of moral obligation. These people tend to be steady givers. Of all the specific types of charities, those serving needy children, medical research and aid to the handicapped were most favored, according to the survey.

And so, it seems clear that there is an innate desire in the hearts of most people to improve the human condition by helping others—sometimes on a one-to-one personal relationship, sometimes by giving money and services to an organized charity.

There are many ways volunteers give of themselves to childrens' charities. What's important is that there *are* opportunities for people to become personally involved in needed community service programs.

As concerned and motivated citizens, they want and demand "a piece of the action" in utilizing their talents to help.

Important as the direct services to children are, there is another dimension to the value of childrens' charities and the individuals who make them work. Through public education and information problems, childrens' charities help focus public attention on the needs of children.

The dramatic success scored in conquering polio is one example of what a childrens' charity can accomplish through research when there is public support. There are many other examples of forward strides achieved through arousing the American public and providing the facts about serious problems.

In conclusion, may I say that there is ample documentation that charities serving children occupy a solid niche in this country's approach to meeting urgent needs. If we want to keep our country strong, I firmly believe one of the ways is to help those children who need a helping hand through all available means. The vitality, devotion and spirit of these children's charities are the powerful ingredients that make possible a creative partnership between the private sector and government. It all adds up to a winning combination of resources that can—and must—find the answers to the problems children face.

Senator Mondale, I want to thank you for this opportunity to say a few words on behalf of organizations for children whose goals and objectives are something I believe in with all my heart.

STATEMENT TO THE SUBCOMMITTEE ON CHILDREN AND YOUTH OF THE SUBCOMMITTEE ON LABOR AND PUBLIC WELFARE

(By Arthur Jack Grimes)

CHARITABLE ORGANIZATIONS THAT BENEFIT CHILDREN

Mr. Chairman and Members of the Committee: My name is Arthur Jack Grimes. I am Director for Membership for the National Health Council. I have had responsibility for the Council's Membership Standards Program over the past twelve years.

THE NATIONAL HEALTH COUNCIL—WHAT IT IS AND DOES

The National Health Council is a private non-profit membership organization that brings together over 75 national voluntary health agencies, professional membership associations, government, business and industrial firms to improve the nation's health through cooperative action. A list of the NHC member organizations is included as an attachment to the advance copy of my statement provided to the committee. The National Health Council was founded in 1920 by a group of leaders—representing such organizations as the American Medical Association, the Rockefeller Foundation, and the American National Red Cross—who anticipated a vast expansion in health activities and foresaw the need for a meeting ground and coordinating mechanism for the growing number of national health agencies in the United States.

The National Health Council's goal is to improve the health of the public throughout the nation. Its principal functions are:

To help member agencies work together more effectively in the public interest.

To identify and promote the solution of national health problems of concern to the public, and

To further improve governmental and voluntary health services for the public at the state and local levels.

The Council's activities are chartere and guided by a 43-member Board of Directors. The governing board is representative of its member organizations with participation from members of the public-at-large. The Council is incorporated under the laws of the State of New York and is classified as a 501(c)(3) Federally tax-exempt organization. Dues from member agencies constitute the major continuing source of income. Funds are provided for special projects by Federal grants, foundations and the business community.

Millions of volunteers are associated with the Council's member organizations. They contribute time and talent in hospitals, rehabilitation centers, in recruitment of other volunteers, recruitment of young people for health careers, public and professional health education, fund-raising, trustee service and a host of other tasks for the benefit of the health of their fellow citizens. They are also the organizations that set and maintain standards for the health care this country receives. They are the professional base for the highly trained core of people who provid health care to Americans. The Council's member organizations are in short, our health establishment.

NHC STANDARDS MET BY VOLUNTARY HEALTH AGENCY MEMBERS

The 19 national voluntary health agencies which are members of the National Health Council can be viewed as truly representative of and responsive to voluntary effort because they are so organizd and operated. The Council's membership requirements for these agencies are designed to assure this and also to assure that they are reliable, ethical and efficient organizations by reason of having met the eligibility requirements before they became NHC members. These requirements include the provision that these organizations document annually to the National Health Council that they meet substantially the Council's criteria of reputable operations including ethical fund-raising and promotion publicity, democratic structure and governing processes with full disclosure to the public of amounts and types of assets, liabilities, income and expenses for program and supporting services (fund-raising and administrative costs) according to the *Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Organizations* (NHC–National Assembly, 1964). The Council's criteria for membership eligibility have been developed and administered as standards for organizational excellence. The objective is not to mold the members into a rigid, inflexibile organizational pattern but to provide sound basic rules for the benefit of the members and to protect and promote the public interest and confidence in the membership. The considered opinion of the Council's leadership is that this is necessary so that voluntarism and professional and public trust may continue to grow.

IMPORTANCE OF VOLUNTARY HEALTH MOVEMENT

My purpose today is to describe the importance of a viable voluntary health movement to improve the health and quality of life for people of the U.S. including children and youth. The 19 national voluntary health agencies represented in the Council membership include the American Cancer Society, the American Health Association, the National Easter Seal Society, to mention a few of the largest, each of which raised over 50 million dollars in 1972. Also included are some of the newer and smaller voluntary health organizations such as the National Cystic Fibrosis Research Foundation, the National Multiple Sclerosis Society and the National Society for Autistic Children.

One of the best examples of the value of the voluntary private sector concerned with health is illustrated by the accomplishments of the National Foundation—March of Dimes. Through the work of this organization we have today a vaccine against polio which formerly took a heavy toll in the lives and health of children and youth. Conquering this disease was made possible with private funds contributed directly by the people of this nation, including yourselves, through the March of Dimes. Each one of the Council's voluntary health agencies is concerned with the health of children and youth; some of them very specifically within that age category, others with the health of people of all ages. A similar success for tuberculosis is due to significant professional and public education and services of the National Tuberculosis and Respiratory Disease Association—now know as the American Lung Association. There are many other successes due to our investments of time and money in the voluntary health movement. Most are not as dramatic as that of conquering TB or polio but for a successful rehabilitation of a crippled child, it is just as important. Significant breakthroughs are promised from the work of the voluntary agencies concerned with kidney disease, hemophilia, and diabetes.

The importance of the voluntary health movement is characterized by their programs and accomplishments in:

1. Creation of awareness of specific health problems among large numbers of people through free-ranging, uninhibited public education campaigns that enhance the use of preventives, precautions and medical services.

2. Support for community health services engendered and augmented by practical person-to-person services which constitute a morale-building factor speeding recovery for the afflicted.

3. Pioneering research in specific disease categories which make it possible to take advantage swiftly of breakthroughs in discovery of causes, remedies and prevention of many diseases.

4. Recruitment and utilization of volunteers who as a result of their agency experience develop satisfaction and skills that make them the new community leaders, urgently needed in our rapidly changing culture.

MANAGEMENT IN THE NHC VOLUNTARY HEALTH MEMBER ORGANIZATIONS

Management techniques evolved by the business world are employed by the major health agencies. They make formal study of their goals and structure, prepare annual budgets for approval by their boards of directors, use electronic data-processing to record their fiscal affairs, keep track of administrative actions and spot trends and changes in public attitudes. This in no way detracts from their humanitarian purposes. The objectives remain altruistic, while such procedures as job classification, performance review, cost analyses and evaluation studies of the particular activities protect the contributors' dollars.

One of the most significant joint actions taken by these agencies to date was the adoption in 1963 of *Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Organizations*. These reporting standards were developed by the National Health Council and the National Assembly for Social Policy and Development to meet the need for better financial data upon which contributors could base decisions. Lack of common terminology and procedures in public financial reporting had made it difficult to appraise and compare the activities of individual agencies. Now, a format has been developed by which each agency can summarize its figures. By using the same ground rules for items of similar nature, there is comparaibility of financial reporting. The *Standards* were adopted in 1973 as the generally "accepted accounting principles' by the AICPA. Beginning with fiscal years ending in 1975, in order to obtain an unqualified CPA audit opinion, voluntary health and welfare organizations at all levels of operation must be using the principles of the uniform accounting *Standards*.

In the *Standards* sources of income are identified within common categories and expenditures are in two major divisions: "Program Services" suchm as research, patient services, public education, profesional education, community services and, "Supporting Services," which includes the general operating services such as administration and fund raising.

At this time most of the national voluntary health and welfare agencies have endorsed and are implementing the *Standards of Accounting and Financial Reporting*. The Council in 1974 is engaged in a joint campaign with the United Way of America, the National Assembly and the American Institute of Certified Public Accountants, as well as with the National Association of Attorneys General, to achieve their universal use.

The Council's criteria for eligibility for membership, including full disclosure according to the *Standards*, have gained wide acceptance in the field as the recommended *Standards* for organization and operation for voluntary agencies and professional membership associations in the health field in the U.S.A. As indicated, they provide sound basic rules for the benefit of the non-profit health and welfare organizations and help to promote the public's interest, trust and confidence in voluntaryism.

THE USE AND LIMITATIONS OF FINANCIAL RATIOS AND JUDGING THE EFFICIENCY OF EFFECTIVENESS OF CHARITABLE ORGANIZATIONS

Since some of the activities undertaken by many voluntary health and welfare organizations ultimately, necessarily and properly simultaneously serve the program objectives of an agency as well as its management activities and the raising of funds to carry on these other functions, it may not be possible, even with the most meticulous accounting, to completely isolate and precisely report all of an agency's expenditures for any single function, whether it be fund-raising, management and general, or a particular program service.

It is fully recognized that the most serious single concern of many contributors, and of many governmental bodies that require public reporting of the finances of certain charitable organizations, is to ascertain agencies' fund-raising costs, and the relationship of these to total funds raised. This concern and preoccupation has also led to a natural and understandable interest in establishing comparative criteria, or even arbitrary limits, for what might be considered a proper percentage of fund-raising costs.

If it were possible to prescribe a *single basis* for comparison, or method of calculating a fund-raising cost ratio that would be applicable uniformly, such efforts would be most useful. Facts do not appear, however, to justify expectation that this can be done. The most serious obstacles to formulation of a universally applicable method of calculating fund-raising cost ratios (and, therefore, to prescribing a proper fund-raising cost percentage) are these:

1. It may not be possible to identify and separately report all of any agency's fund-raising costs.

2. Many agencies, in addition to support from the public that they obtain directly, receive public support indirectly through federated and other fund-raising organizations whose fund-raising cost they may not be able to ascertain.

3. Bequests or governmental grants, that may be received years after they were solicited or be entirely gratuitous, may preclude any meaningful matching of support and revenue with fund-raising costs.

4. Only relatively large agencies can be expected to have accounting staffs and systems that will permit full separate accounting for costs of multiple fund-raising activities during a given year—e.g., operating fund campaigns, a building fund campaign, special fund-raising events.

The foregoing considerations suggest that a great deal of caution be exercised by individuals or groups who attempt comparative evaluations of voluntary agencies' fund-raising costs, or who attempt to devise standard methods of calculating fund-raising costs percentages or to set ceilings for them. Other financial ratios that are sometimes used in efforts to appraise voluntary agencies, such as of total "administrative" or "overhead" costs to total expenditures, are subject to the same cautions and limitations.

For the committee's information a 1973 study of 15 of the NHC voluntary health agencies for all levels of operation, reporting according to the uniform accounting *Standards*, expenditures for fund-raising did not exceed one-third of income for 1972. Most

have fund-raising costs less than 25% income.

ETHICAL FUND-RAISING AND PROMOTION PUBLICITY

The NHC requires that its voluntary health agency members' fund-raising and promotion programs be conducted according to the following standards:

a. Methods of Promotion—Only ethical methods of fund-raising are employed by the organization or on its behalf. The publicity and promotional activities in connection with fund-raising encourages respect for clientele and presents factually accurate material describing the needs served, volume and character of services offered and accomplishments. Protection is afforded against unauthorized use of the organization's contributor lists.

b. Fund-Raising Methods—The organization does not mail unordered tickets or commercial merchandise with request for money in return. The telephone is not used for soliciting funds from the "general" public. No arrangements are entered into to raise funds on a commission basis.

c. Fund-Raising Costs—The organization is pledged to honest reporting of fund-raising costs, and to the development of improved standards of recording such costs. Fund-raising costs are disclosed to contributors and to general public in the annual report.

These requirements are based on the *Standards of Fund-Raising Practice for Social Welfare Organizations* promulgated by the National Assembly for Social Policy and Development (formerly the National Social Welfare Assembly) and over 35 other national health and welfare organizations.

FEDERAL LEGISLATION AFFECTING CHARITIES THAT SERVE CHILDREN—WHAT MORE IS NEEDED?

In addressing ourselves to the question of what Federal legislation may be needed to protect the public interest in voluntary solicitations, we need to assess the value to our nation of the private philanthropic initiative in defining and contributing to the public good. An example might be useful to make the point of the value of private philanthropic efforts in increasing the quality of life, and particularly the improvement of health.

If you were to examine the record to see when Federal funds became available in significant amounts for the support of health related research, you would observe that this began after the victory over polio was declared in 1955. You will recall that this battle was initiated by the National Foundation against Infantile Poliomyelitis (March of Dimes). The winning of their victory was due primarily to the investments by this organization in research and quick application of the results from research towards that end. While the scientific community, including the voluntary health agencies, welcomed the addition of a large measure of support for research in recent years and the foresighted wisdom of the Congress and the President in making this possible many of us would question the wisdom of reducing incentives for encouraging contributions of money and time from the private sector to the point where we become solely dependent upon only the government for support of this service.

By appreciation of the importance of *diversity* in private initiative in attacking problems and provision for protecting this system by Federal laws, we have become the most advanced and enlightened country in the world. Private philanthropy in the U.S. began with the concept of neighbor helping neighbor, then pooled voluntary help in improving the conditions of the poor. This was followed by voluntary organization initiative and support of the fight against disease, and now the focus is on improving the quality of life for all of us in a way that is envied the world over.

In 1973 I made a study of voluntary citizen action in seven European countries. Included were some of the more socially advanced nations, such as England and Sweden, which moved to the point of almost complete dependence upon government for provision of social services. In each of the countries visited there is a desire by government and private leadership to build a stronger organized private voluntary system to assist the government in carrying out the mandate from the people for social services improvement. Voluntary organizations do exist in most European nations but there is a difference in the amount of participation and initiative when most of the money for voluntary action comes directly from government appropriations.

I do not think anyone wishes to destroy or weaken a system that has produced so well for us through the availability of funds and voluntary action from individuals and private sources such as foundations, business firms, etc. for the innovations and initiative that has contributed to our success to date in meeting health problems. There is much needed to provide improved health services but we must be careful not to destroy a good system in the process to trying to *improve* it.

PROPOSALS FOR LEGISLATION TO IMPROVE VOLUNTARY CITIZEN ACTION

To build upon our accomplishments to date through voluntary citizen action for health I would urge consideration by this committee of legislation that would accomplish the following objectives:

1. *Provide increased incentives through our tax system for voluntary citizen support of reputable voluntary organizations.*

During the 1973 legislative session proposals were advanced for reform of the existing Federal tax laws. These proposals would reduce or eliminate the current tax deduction for charitable giving. In effect, such proposals would have all funds for public services channeled through government appropriations.

As I indicated, the European experience has found this quite damaging to individual, private initiative for social improvement. The attitude is that if government collects the money, let government do it for us. The unique success of the U.S. experience, in my opinion, is attributable to the philanthropic experience and its encouragement through the laws providing tax incentives for support of public service activities by individuals and private organizations together with government. We need the provisions in our tax laws that encourage, not discourage, increased support for reputably operated charitable activities.

2. *Correct the existing severe restrictions on the right of public charities to participate in legislative dialogue.*

Currently, such groups are not permitted to engage in activities affecting legislation "to any substantial extent." "Substantial" is not currently defined. As a result few organizations risk their tax-exempt status by engaging in effective efforts to improve inadequacies or inequities in our health system controlled by government legislation. This is in contrast to tax-exempt trade associations that have no restrictions on their legislative activities. Such inequity is at the expense of organizations that are primarily concerned with the larger "public or community interest." I urge your support in development of legislation that would increase the amount of dialogue by the private sector in the legislative process for ways of improving services for people of *all* ages including children and youth.

3. *Strengthen provisions of the current requirements for organizations that are granted a tax-exempt status under Section 501(c)(3) of the IRS Code.*

Federal legislation is needed to help the public determine the organizations that are reputable and those that are not efficient or effective in use of the public trust granted to them by tax-exempt status. This can be done without the government deciding what constitutes "efficiency" and "effectiveness" among the organizations that are so classified. I believe that a provision requiring organizations that are classified as tax-exempt to issue an annual trusteeship report to their constituency (which in most instances is the general public). Such an annual report should provide for full disclosure by a tax-exempt, 501(c)(3) organization of:

1. financial transactions according to generally accepted accounting principles for its field including an opinion statement by an independent public accountant;

2. program services and accomplishments by the organization during the reporting period;

3. names and geographic locations of persons with the responsibility for organization's policy and its execution. Provision could be made for such disclosure in an annual statement to their constituency via the public media and/or a separate publication made available to the public at the time of solicitation for support.

In respect to the third proposal the general concept was proposed during the last legislative session in the pension reform bill. Provision was made for establishment of an "Assistant Commissioner (of the IRS) for Charitable Organizations." The idea behind this position is to provide expert guidance to tax-exempt organizations in meeting the requirements of the tax law. As I understand the proposal, it would *not* be primarily directed towards the collection of revenue.

My purpose in coming before this committee is to stress, not only the importance of the private sector but the need for enlarging the opportunities for citizens to act voluntarily, generously, to support good work in their communities in the nation. We all like to have the feeling that each of us can have a positive influence in improving our own life, that of our children and of our neighbors through contributing to causes that benefit others as well as ourselves. The possibility of being able to do so and the encouragement of this concept will have benefits in the form of healthier and happier children and more involved citizenry than if primary dependence of social service, including health, institutions are supported through tax funds.

NATIONAL HEALTH COUNCIL MEMBER ORGANIZATIONS

ACTIVE MEMBER AGENCIES

American Association of Blood Banks
American Association for Respiratory Therapy
*American Cancer Society
American College of Preventive Medicine
American College Health Association
American Dental Association
*American Diabetes Association
*American Heart Association
American Hospital Association
*American Lung Association
American Medical Association
American Medical Technologists
American Medical Women's Association
American Nurses' Association
American Occupational Therapy Association
American Optometric Association
American Osteopathic Association
American Pharmaceutical Association
American Physical Therapy Association
American Podiatry Association
American Public Health Association
*Amercan Social Health Association
American Society for Medical Technology
American Speech and Hearing Association
*Arthritis Foundation
Association of Medical Rehabilitation Directors and Coordinators
Association of Schools of Allied Health Professions
Association of Schools of Public Health
Blue Cross Association
*Epilepsy Foundation of America
Eye-Bank Association of America, Inc.
*Muscular Dystrophy Associations of America
National Association of Blue Shield Plans
National Association of Home Health Agencies
National Association for Music Therapy, Inc.
*National Council on Alcoholism
*National Cystic Fibrosis Research Foundation
*National Easter Seal Society for Crippled Children and Adults
National Environmental Health Association
*National Foundation
*National Hemophilia Foundation
*National Kidney Foundation
National League for Nursing
National Medical Association
*National Multiple Sclerosis Society
*National Safety Council
*National Society for Autistic Children
*National Society for the Prevention of Blindness
Society for Public Health Education
Student American Medical Association
Student National Medical Association
*United Cerebral Palsy Associations
* Voluntary Health Organiaztions

ASSOCIATE MEMBERS

American Foundation for the Blind.
American Home Economics Association.
American National Red Cross.
Association of Junior Leagues of America, Inc.
Equitable Life Assurance Society of the United States.
Goodwill Industries of America.
Health Insurance Council.
Lions International.
Metropolitan Life Insurance Company.
National Association of Social Workers.
National Council on the Aging.
National Council for Homemaker-Home Health Aide Services.
National Dairy Council.
National Federation of Business and Professional Women's Clubs.
National Rehabilitation Association.
National Urban League.
Smith Kline & French Laboratories.

FEDERAL AGENCY MEMBERS

United States Department of Agriculture
Federal Extension Service.
United States Department of Health, Education and Welfare.
Office of Education.
Public Health Service.
Social Security Administration.
Social and Rehabilitation Service.
Veterans Administration
Department of Medicine and Surgery.

FOOTNOTE

* These organiaztions document annually to the National Health Council that they meet substantially the Council's eligibility criteria of reputable operations including ethical fund-raising and promotional publicity, democratic structure and governing processes, with full disclosure to the public of amounts and types of assets liabilities, income and expenses for program and supporting services (fund-raising and administrative cost) according to the Standards of Accounting and Financial Reporting for Voluntary Health and Welfare Organizations (NHC-National Assembly).

A copy of the NHC Eligibility Criteria for National Voluntary Health Organizations is available on request to: National Health Council, 1740 Broadway, New York, N.Y. 10019, Tel: (212) 582-6040.

CHARITABLE ORGANIZATIONS AFFECTING YOUTH AND CHILDREN

(Testimony by Helen L. O'Rourke)

Thank you, Mr. Chairman.

I am Helen O'Rourke, Director of Philanthropic Advisory Department, Council of Better Business Bureaus, Inc.

On behalf of the CBBB, permit me to say I appreciate the opportunity to participate in this hearing and assist you in your study of charitable organizations that benefit children.

I'd like to commence with a brief description of our organization. The Council is very much involved in the monitoring of soliciting organizations. The Council of Better Business Bureaus, Inc., came into being on August 1, 1970, as a result of the consolidation of the National Better Business Bureaus, Inc., and the Association of Better Business Bureaus International, Inc. The Council combines the functions of its predecessors by:

1. fostering fair advertising and selling practices in national advertising;
2. coordinating policies, standards and practices for Better Business Bureaus; and
3. providing a national voice for the Better Business Bureau system.

The Council is a non-profit corporation supported by annual dues from its members. Its membership consists of 140 Bureaus in the United States, and more than 1,000 national companies.

The Council is guided by a Board of Directors consisting of 36 members and up to 12 at-large members. Representing the Better Business Bureaus is the Management Committee, consisting of 14 Bureau executives, whose functions are, in general, to provide expert advice on policies and operations.

Recognizing the need for factual and readily available information, the Philanthropic Advisory Department of the Council of Better Business Bureaus has developed a program to provide the public, Better Business Bureaus, Chambers of Commerce, corporations, media and the government—at all levels—with factual reports on national and international soliciting organizations. Included in these reports is information about the organization structure, activities, fund-raising methods, financial statement and tax status.

Also the Philanthropic Advisory Department of the Council of Better Business Bureaus provides advisory and consulting services to soliciting organizations regarding fund-raising ethics, operations and compliance with established standards.

All of the services of the Philanthropic Advisory Department of the Council of Better Business Bureaus are provided at no cost to the individual or organization requesting information, reports or assistance.

During 1973, the Philanthropic Advisory Department of the Council of Better Business Bureaus responded to over 10,000 requests for informative reports on national and international soliciting organizations. January, 1973, the Philanthropic Advisory Department of the Council of Better Business Bureaus received 600 telephone and mail inquiries. By December, 1973, the number of inquiries jumped to over 2500. Last week we received approximately 1300 public inquiries. For your information, individuals, through direct gifts or charitable bequests, contributed 86.6% of the over 22 billion dollars given in 1972 for philanthropic programs.

The 140 Better Business Bureaus are provided with the written reports developed by the Philanthropic Advisory Department of the Council of Better Business Bureaus and they also maintain information and reports on local soliciting organizations.

The Philanthropic Advisory Department not only provides local Better Business Bureaus with reports and other information on national and international soliciting organizations, but also provides them with assistance, training and guidance in their investigation and report procedure. In turn, the local Better Business Bureaus provide the Philanthropic Advisory Department with information about the local activities of national and international soliciting organizations that are active in their service area.

One of the areas of greatest public concern is the organizations which offer child welfare services through "sponsorship" plans, or "adoptions". Under this plan, a sponsor usually will "adopt" a child and remit an average of $12 a month to the organization for support of the child. In return, the sponsor will receive a picture of the child, a case history, personal letters, and follow-up information. The *public* usually expresses its concern about these types of organizations by asking:

(a) Is this organization worthwhile and deserving of support?

(b) Does my money really go to the child?

(c) Is there a child who receives my money?

(d) How much of my money really goes to the child?

(e) Is there really such a child?

The problem overseas is almost impossible to resolve at this time. One particular problem frequently occurs when people see in solicitation material that an organization is "Registered with the U.S. Government's Advisory Committee on Voluntary Foreign AID". People frequently assume that an organization has passed some sort of "test" of its reliability and that such an organization is "approved" by the government. One of our jobs has been to explain to people that registration with AID does mean that an organization has met certain criteria, but not necessarily that it has been approved as a government-accepted/approved organization.

Any organization operating overseas, or with extensive overseas programs, as most of the child adoption agencies are, is almost impossible to check. There are only a few Better Business Bureaus outside the United States, and they are not where the heaviest concentration of children's groups operate; Viet Nam, Hong Kong, Korea, South America. The Council has been able to contact the Hong Kong Social Services Department on one solicitation which originated from a leper colony there, but our avenues of information on other types of programs are virtually non-existent. The Council finds itself in the position of being one of the foremost authorities on soliciting organizations, with no place to go for the information it needs to verify or countermand the claims made by soliciting organizations.

An additional problem is created when the soliciting organization is a religious, or religious-affiliated one. Most existing state and local regulatory agencies have traditionally exempted religious groups from their registration and reporting requirements. It is only since 1969 that religious organizations have been required to file Information Returns (990) with the IRS.

The Council of Better Business Bureaus does not comment on the validity of any particular religion. However, when any church or religious group enters the marketplace or solicits charitable contributions from the public at large, both activities fall within our traditional reporting responsibilities. In either situation, the Council never comments on the religion itself.

Another major educational problem faced by the Council of Better Business Bureaus concerns the public belief that, once an organization has been awarded a tax-exempt ruling by the Internal Revenue Service, its legitimacy can be relied upon. The IRS, of course, is not equipped to audit all tax-exempt organizations soliciting funds from the public, on even a once every ten year schedule. The public, however, persists in believing that the Internal Revenue has certified the reliability of an organization by awarding it a tax-exempt status.

The IRS is responsible for making the Form 990 by a tax-exempt organization available to the public. However, these returns are usually so out of date by the time they become available to the public as to be useless. Frequently, new organizations will lose money, or have extremely small incomes during their first years, and have second and third years that are remarkably successful. CBBB has, in its files, information on an organization that took in approximately $20,000 its first year of operation, and took in well over $1 million its second. So that when the first year Form 990 becomes available to the public, usually one or two years behind the time they were filed, it is virtually useless to an inquirer.

As another example, CBBB recently requested the returns of three tax-exempt organizations. The latest available information was, for one, a return filed in 1968, for another, filed in 1969, and for another, in 1957.

In connection with child adoption organizations, people are obviously concerned as to whether the child exists in the first place, and I have attempted to detail some of the problems encountered by CBBB in our attempts to verify that fact.

People also want to know that their money is going to the child. Very often, an inquirer will become irate when told that only $8 or even $10 of their contribution goes to the child, with the rest usually allocated to contingency funds or to administrative or fund-raising costs of the organization. The public has not accepted the fact that a soliciting organization is not really any different from a profit-making business firm that has certain fixed costs of doing business and running its program.

One of the problems is that some of the soliciting organizations seeking funds to aid children use a picture of an unusually dirty, plaintive looking child, who "needs love" or is reaching out for help. Often the advertising attempts to depict the immediacy of the child's need created through compelling illustration or "gimmicks," such as asking Mrs. Martin for help for Elizabeth Martin, whose picture is attached to the appeal.

The Council of Better Business Bureaus, together with almost 50 representatives of fund-raising organizations, media and donor groups, has worked for the past 9 months to develop equitable and effective "Standards for Charitable Solicitations."

CBBB believes any organization which solicits funds from the public should provide a full accounting of their activities and financial standing to potential or actual donors. Our first part of the standards will delineate those areas which we believe to be the most important for consideration in determining the relative effectiveness and efficiency of an organization. These standards relate to the structure, finances, fund-raising methods.

The second part of CBBB's Standards is concerned with the accuracy and completeness of a soliciting organization's advertising and informational material. Increased public skepticism directed toward advertising has not skipped the promotion/publicity, educational campaigns conducted by soliciting organizations.

In conclusion, let me say that I believe there are several areas where attention could be directed with an eye toward resolving some of the more outstanding problems in this investigation/reporting area.

First, it is obvious that the IRS is ill-equipped to do the job they are being asked to do. A non-profit organization should be treated separately from a profit-making firm and accordingly, a separate review/monitoring section should be developed to handle this problem. A greater staff could allow for periodic review of an organization, its reporting to IRS, and its general operations. Attention should be directed particularly hard at an organization during the first years of its operations, and on a regular basis thereafter.

Secondly, it might be possible for different agencies, notably AID, to make greater use of American personnel already overseas. It should be possible for each organization requesting acceptance from AID to be fairly thoroughly investigated, including its overseas operations. Again, reviews should be conducted on a regular basis.

Finally, I would like to bring to the attention of the Committee a Bill, H.R. 11991, which was introduced December 17, 1973 by Congressman Lionel Van Deerlin, of California. This Bill would require the soliciting organization, upon request, to furnish complete and accurate financial and program disclosure about it and the person making the solicitation. This Bill was drafted with the help of a number of interested organizations; including, the National Health Council, American Association of Fund-Raising Counsel, National Foundation, Direct Mail Marketing Association, National Catholic Development Conference, United Way, National Assembly for Social Policy and Development and I was asked to participate as a consultant.

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Senate

ANNALS OF INDUSTRY—CASUALTIES OF THE WORKPLACE

Mr. MONDALE. Mr. President, the October 29, 1973 issue of New Yorker magazine contains an article by Paul Brodeur entitled "Annals of Industry: Casualties of the Workplace." The article is the first of a five part series dealing with the hazards of asbestos manufacture. I feel that the article is noteworthy and deserves the attention of my colleagues for it is a most appalling expose of the lax enforcement of, and industrial disrespect for, governmental health and safety regulations.

Mr. Brodeur reviews the history of asbestos manufacture and medical research related to asbestos. He states that, of all the industrial hazards, none is considered more serious than occupational exposure to asbestos. Indeed, 1 out of every 5 deaths among asbestos insulation workers in the United States is due to lung cancer; almost 1 out of every 10 deaths among these workers is due to mesothelioma ,an invariably fatal tumor of the linings of the chest or abdomen which rarely occurs without some exposure to asbestos; another 1 out of every 10 deaths among these workers is due to asbestosis, scarring of the lungs resulting from inhalation of asbestos fibers; and almost half of the asbestos workers are dying of some form of asbestos disease.

These frightening statistics were uncovered through the tireless research of Dr. Irving J. Selikoff, the director of Mount Sinai School of Medicine's Environmental Sciences Laboratory, and Dr. E. Cuyler Hammond, vice president for Epidemiology and statistics of the American Cancer Society. Both men have been active in asbestos research for many years and have advised numerous commissions designed to investigate the health hazards of the asbestos industry.

The author observes that, despite these tragic findings, there has been a sorry lack of Government concern for occupational exposure to asbestos. The article furnishes an alarming picture of the medical-industrial disregard for the health of the asbestos worker and of the gross inadequacies of the Government's enforcement of health safety regulations in the asbestos industry.

Mr. President, I ask unamious consent that the article entitled "Annals of Industry: Casualties of the Workplace," by Mr. Paul Brodeur from the October 29, 1973 issue of New Yorker be printed in the RECORD.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

ANNALS OF INDUSTRY: CASUALTIES OF THE WORKPLACE

I—SOME NONSERIOUS VIOLATIONS

A year ago last winter, a flurry of unusual activity accompanied the closing of a factory owned by the Pittsburgh Corning Corporation in Tyler, Texas, a city of sixty thousand about a hundred miles east of Dallas. Production stopped on February 3, 1972, and then the factory, which for more than seventeen years had been manufacturing asbestos insulation, was subjected to a cleanup of prodigious scope and intensity. Under the scrutiny of armed Pinkerton guards, who had been hired by the company to keep unauthorized persons away from the plant and its nearby dumps, sixty-two employees spent a week scraping asbestos waste from machinery and other equipment, and removing and burying truckload after truckload of asbestos scrap that had accumulated in the plant.

This work force was laid off permanently on February 11th, and a crew of four maintenance men spent the next two weeks washing down ceilings and walls and steam-cleaning every piece of machinery in sight. Meanwhile, thirty-five thousand burlap sacks, in which amosite asbestos had been shipped to the factory from mines in South Africa, and which, once emptied, had been sold for a nickel apiece to some of the rose nurseries for which the Dallas-Tyler area is famous, were repurchased by Pittsburgh Corning at double the price, brought back to the plant in trucks, and buried at one of the factory's dumps.

Toward the end of February, the skeleton crew, using acetylene torches, cut up three one-hundred-and-fifty-foot-long chain conveyor belts, three five-hundred-pound cyclone machines, and hundreds of feet of ventilation pipe, all of which were then taken outside and buried in a dump. Other pieces of heavy equipment, including eight twelve-foot-high feeding machines, three one-hundred-foot-long drying ovens, and a dozen dust collectors, were cut up and sold for junk, and still other items, such as saws, an asbestos-scrap grinder, and the draw works and gears for the ovens, were shipped by rail to Pittsburgh Corning's home office, in Pittsburgh. By the end of March, the Pinkertons were no longer needed—there being very little left on the Tyler plant for any trespasser to see—and by the end of April practically nothing remained of the factory except two dilapidated wooden buildings, which had once been warehouses at Camp Fannin, a Second World War training center and P.O.W. camp. One of them—the production building—was virtually empty; the other, the factory's storage area, was half filled with sacks of amosite-asbestos fibre, which the company had not used before shutting the plant.

Although Pittsburgh Corning never gave any official reason for the drastic tidying up that accompanied the closing of its Tyler plant, an explanation of the shutdown itself was made two weeks before by E. W. Holman, the corporation's vice-president in charge of manufacturing and technology. In an interview published in the Tyler Courier-Times on January 19th, Holman said that increased costs of buying amosite-asbestos fibre and transporting it from South Africa, plus the fact that his company was finding it more and more difficult to market its finished product because of competition, had brought about a decision to cease operations at the Tyler plant and at a Pittsburgh Corning plant in Port Allegany, Pennsylvania. He remarked that "new clean-air restrictions" had also played a role in "speeding up" the closing of the two factories, since the restrictions would have forced his company to install costly filtering equipment in order to bring the level of asbestos dust in the factories down to lawful limits. According to the Courier-Times, Holman acknowledged that asbestos fibres posed a health hazard, but added that he knew of no specific Pittsburgh Corning employee who was suffering from significant illness as a result of working with the product.

Three weeks after Holman's remarks were published a somewhat different version of the situation at the Tyler plant was given by Anthony Mazzocchi, the director of the Legislative Department of the Oil, Chemical, and Atomic Workers International Union, which had represented employees at the factory since 1962. Speaking at a press conference in Washington, D.C., on February 10th, Mazzocchi disclosed that a government survey had shown major industrial-hygiene deficiencies in the operation of the plant, including a grossly inadequate ventilation system, which had resulted in airborne-asbestos levels constituting a critical occupational health hazard. According to Mazzocchi, the survey had determined that seven of the eighteen workers who had been employed at the factory for ten years or more showed symptoms of asbestosis—scarring of the lungs caused by inhalation of asbestos fibres—which is a significant illness by almost any standard, in that it is irreversible, untreatable, often disabling, and frequently fatal.

Pointing out that asbestos has also been proved to be a potent carcinogen, Mazzocchi voiced the fear that many of the men who had worked in the factory would one day be afflicted with lung cancer or other malignant tumors. Moreover, he indicated that a health hazard might extend far beyond the plant, because the company had sold tens of thousands of burlap sacks contaminated with asbestos dust to nurserymen, who used them to wrap evergreens and other stock for shipment to retailers and gardeners throughout the nation.

For its part, Pittsburgh Corning made a public response only to the last of Mazzocchi's disclosures. On February 16th, a spokesman for the company admitted to a reporter for the Tyler Morning Telegraph that thirty-five thousand burlap bags had been recalled from the Dallas-Tyler area, but he denied that there was any reason to consider them a health hazard. The apparent contradiction in this statement was not resolved by the manager of the Tyler plant, who was quoted at the same time as defying anyone to find any of the bags in question. "We've hired bulldozers to put all those bags underground," he said, making an assertion that would soon apply to much of the factory equipment as well. By then, however, word had got out that considerably more of the Tyler plant was buried than burlap bags and cut-up machinery.

In a sense, the story of the Tyler plant begins with the founding of the Union Asbestos & Rubber Company, in Chicago, in 1918. According to the United States Bureau of Labor Statistics, American and Canadian insurance companies were even then generally declining to insure asbestos workers because of the assumed hazardous conditions of the asbestos industry. Union Asbestos started out as a jobber of railway supplies and an assembler of finished asbestos and rubber products. Business expanded rapidly, thanks to the development of a flexible asbestos tape, which achieved wide use for insulating pipes in steam locomotives, and in 1926 Union Asbestos built a factory in Cicero, Illinois, to manufacture asbestos textiles, insulation materials, packings, brake linings, and gaskets, and a variety of rubber products. Another leap forward took place in the mid-thirties, when the company developed an amosite-asbestos pipe insulation for the Navy. Amosite is a variety of asbestos found in large deposits in the Transvaal region of South Africa, and it had never been used before in the United States, where most asbestos products had been (and continue to be) made of chrysotile, a variety of the mineral that exists in vast deposits in Canada and the Soviet Union, and accounts for ninety-five per cent of the world's production. Because it is as heat-resistant as chrysotile, and can be purchased more cheaply, amosite was chosen for insulating the pipes, turbines, and boilers of modern warships, and by 1940 the Navy's demands for amosite pipe insulation were such that Union Asbestos—or UNARCO, as it had come to be known—started a plant in Paterson, New Jersey. During the war years, the UNARCO plants in Cicero and Paterson churned out amosite pipe covering for the Navy around the clock, winning numerous Army-Navy "E" awards. Such insulation continued to be much in demand in the postwar period, and in 1949 the company set up a third plant to manufacture it, in McGregor, Texas. Then, in November of 1954, as part of a consolidation program, the company shut the McGregor and Paterson factories, and opened the factory at Tyler, Texas.

Little was known about the Tyler plant except that it was set up to operate generally like the factory in Patterson. However, some information that would one day impart tremendous medical significance to this similarity was just then beginning to be developed by Dr. Irving J. Selikoff, a chest physician, who is head of the Division of Environmental Medicine at the Mount Sinai School of Medicine of the City University of New York, director of its Environmental Sciences Laboratory, and a pioneer in the field of asbestos epidemiology. A native of New York City, Dr.

Selikoff interned at the Beth Israel Hospital in Newark; did his pathology work at Mount Sinai, where he has been a member of the staff since 1947; and became a chest physician at the Sea View Hospital, on Staten Island, specializing in tuberculosis. In 1951, he participated in the basic research on isonlazid—the antibiotic drug that, by effectively killing tubercle bacilli, has provided a cure for tuberculosis—and in 1953 he founded a medical clinic in Paterson, where, by chance, seventeen of his early patients were men who worked in the nearby UNARCO plant.

At the time, fifteen of the men showed some evidence of pulmonary defects resulting from the inhalation of asbestos. When the Paterson factory closed, they went into other work, and at that point Dr. Selikoff decided to continue his observation of them with X-ray examinations and lung-function tests to determine the history and the natural course of asbestos in men who would not be further exposed, but in whose tissues the previously inhaled fibres would remain. This was the start of a long journey of discovery for Dr. Selikoff, who would eventually help to demonstcrate that asbestos is one of the major industrial causes of cancer. At the time, he was interested chiefly in asbestos, because he was not convinced that the relationship between asbestos and cancer, which had previously been suggested by a number of medical authorities, would prove to be a serious problem. As things turned out, he changed his mind. In 1954, all seventeen men from the Paterson factory were working and apparently able-bodied.

Today, only two of them are alive. Of the fifteen who died, seven were victims of lung cancer, two of cancer of the stomach, four of asbestos, and one of malignant mesothelioma—an invariably fatal tumor of the pleura, the membrane that encases the lung, or of the peritoneum, a similar membrane that lines the abdominal cavity—which rarely occurs without some exposure to asbestos. (One of the fifteen deaths was of heart disease.) As early as 1961, by which time six of the seventeen had died, Dr. Selikoff began to suspect the worst for men who were occupationally exposed to the mineral. At that time, he wrote to Edwin E. Hokin, the president of UNARCO, asking him to make employment records available, so that he could undertake a survey of all the men who had worked in the Paterson factory. Hokin turned the request down, saying the records were not available, but he was surely aware that men who had worked in the Paterson factory might be having medical problems, for during the nineteen-fifties the company had paid out substantial amounts of money to employees of the plant who had become disabled with asbestos.

Dr. Selikoff then wrote to several other large asbestos manufacturers in the United States to ask about the health experience in their plants, and was unable to obtain information from any of them. Meanwhile, he and Dr. Jacob Churg, the chief pathologist at Barnett Memorial Hospital, in Paterson, who had himself been finding asbestosis and lung cancer in a large number of workers from the Paterson factory, took their data to Dr. Roscoe P. Kandle, the Commissioner of the New Jersey State Department of Health. Concerned about the situation, Dr. Kandle applied to the United States Public Health Service for funds to undertake a study of the Paterson plant and to make a statewide survey to determine how many people were being occupationally exposed to asbestos. However, the request was denied, lack of resources being given as the reason.

Since Dr. Selikoff already knew that men who had worked in a insulation factory were dying of asbestosis or cancer at an alarming rate, he felt that men who were installing such materials might also risk disease, and early in 1962 he made contact with officials of New York Local 12 and Newark Local 32 of the International Association of Heat and Frost Insulators and Asbestos Workers. The asbestos insulators had been trying for years without success to interest doctors and various government agencies in their medical problems, so they were only too glad to cooperate, and they urged Dr. Selikoff to study the effects of asbestos exposure among their members. He accepted the responsibility, and, though continuing to monitor those of his original seventeen patients who had survived, temporarily abandoned his project to study the other men who had worked in the Paterson factory. At the time, he did not know of the existence of the UNARCO plant in Tyler, Texas.

The Tyler plant was then thriving but was about to change hands. UNARCO held a large contract with the Navy to provide pipe covering for atomic submarines, and the factory was also producing insulation for the chemical-processing industry on the nearby Gulf Coast, which was growing rapidly. Over the years, however, the company had acquired half a dozen plants for the manufacture of various products unrelated to asbestos, and this diversification had altered the objectives of its managers, who decided to quit the asbestos business altogether. As a result, the company sold the Tyler plant in 1962 to the Pittsburgh Corning Corporation—a joint venture of the Pittsburgh Plate Glass Company (now call PPG Industries) and the Corning Glass Works—and the produtcion of amosite-asbestos pipe covering continued as before. By the summer of 1963, howeevr, the new owners were apparently entertaining some misgivings about working conditions in the factory, for at that time they asked the Industrial Hygiene Foundation of America to evaluate the asbestos-dust hazard there. The foundation, which is in Pittsburgh, describes itself as "an association of industries for the advancement of healthful working conditions," and it is financed entirely by industry. It sent industrial-hygiene engineers to the Tyler plant in July and August to review the potential health hazards of handling asbestos and to take samples of airborne asbestos-dust concentrations.

In its report to Pittsburgh Corning, the foundation made no mention of any health hazard, and assured the company that, except in a few areas, the number of asbestos fibres found in the air of the Tyler plant was well below the threshold limit value of five million particles per cubic foot of air—a safety standard for dust in asbestos factories that had been adopted in 1946 by the American Conference of Governmental Industrial Hygienists, which, despite its imposing title, is not a government agency but a voluntary organization with members from various groups, including industry, and with the self-imposed task of recommending safety standards for hazardous substances in industry. Incredibly, the authors of the foundation's report appear to have based their judgment on the assumption that the threshold limit value of five million particles per cubic foot meant five million asbestos fibres, whereas the proponents of the threshold limit value had intended it to apply to *all* the particular matter—fibrous and nonfibrous—in a given cubic foot of air. To understand the magnitude of this error, it should be noted that the study upon which the standard was based had been made in the winter of 1935–36 in four asbestos-textile plants where asbestos fibres were found to constitute about ten per cent of the total amount of airborne dust. The asbestos fibres in the airborne dust measured in the Tyler plant by engineers of the Industrial Hygiene Foundation ranged from a low of twenty-nine per cent to a high of fifty-six per cent. The foundation, however, reported the percentages as if they were of little or no consequence, and contended itself with making recommendations for better housekeeping, better ventilation equipment, and improved maintenance of the ventilation system.

These measures were desperately needed, but there is little evidence to suggest that Pittsburgh Corning felt compelled to initiate them, for when the next survey of the plant was made, more than three years later, conditions were even worse. By that time, the company had acquired a new medical consultant—Dr. Lee B. Grant, a retired colonel, who had been Chief of Aerospace Medicine for the United States Air Force Logistics Command, and who had become medical director of one of Pittsburgh Corning's parent corporations, the Pittsburgh Plate Glass Company, in 1965. At Dr. Grant's request, a survey of the Tyler plant was conducted in November of 1966 by J. T. Destefano, safety and industrial-hygiene engineer for the glass division of Pittsburgh Plate Glass, to see if there had been any significant change in the levels of airborne-asbestos dust since the 1963 survey. After analyzing samples of air from sixteen different areas of the plant, Destefano subsequently reported that asbestos-fibre counts exceeded the threshold limit value in seven instances and that in three of the samples the count was twenty million or more fibres per cubic foot of air. Destefano was, apparently, making the same erroneous assumption about the meaning of the threshold limit value which had been made three years before by engineers of the Industrial Hygiene Foundation. As a result, though he also suggested better ventilation equipment and improved maintenance of the ventilation system, his report did not mention that workers at the Tyler plant were breathing concentrations of asbestos fibres ten times greater than those of the recommended safety standard that was supposed to protect them from disease.

During the span from 1963 to 1966, a tremendous amount of new information concerning the biological effects of asbestos had been developed and was being circulated through the medical and industrial communities. Perhaps the most important study of the period was the one that Dr. Selikoff conducted of the asbestos insulators. As asbestos workers go, these men had comparatively light and intermittent exposure: they often worked out-of-doors on construction projects; they spent half their time working with materials other than asbestos; and most of the asbestos materials they used had an asbestos content of less than fifteen per cent. (The men at the Tyler plant worked in a confined, far dustier atmosphere, and manufactured a product that had an asbestos content of almost ninety per cent.) In spite of this relatively light exposure, however, Dr. Selikoff found radiological evidence of fibrosis of the lungs—that is, scarring of the lungs—in fully half of eleven hundred and seventeen members of the two locals of the Heat and Frost Insulators and Asbestos Workers. Moreover, among three hundred and ninety-two men with more than twenty years of experience in the trade, he found that three hundred and thirty-nine had deveolped asbestosis, and that the disease had by then become moderate or extensive in more than fifty per cent of the cases.

Even more alarming were the results of a mortality study of workers in the two locals. During the early part of 1962, Dr. Kelikoff and his administrative assistant, Mrs. Janet S. Kaffenburgh, pored over the union records and compiled a list of the names and addresses of all the six hundred and thirty-two men who had been members of the locals on December 31, 1942, and of the eight hundred and ninety men who had joined between then and December 31, 1962. From the union employment records, they obtained detailed work histories of the total membership of fifteen hundred and twenty-two men, including data on the men's leaving work for other employment, war service, illness, or retirement. This enabled them to calculate the onset and duration of exposure to asbestos for each worker. Records of the union health-and-welfare funds provided them with the dates and places of death of two hundred and sixty-two workers who had died between 1942 and 1963, and copies of the death certificates of all but one of them were obtained. In addition, autopsy protocols, histological specimens, and hospital records were reviewed by Dr. Selikoff and Dr. Churg, the Paterson pathologist, in those deaths (approximately half the total) which occurred in hospitals.

In the next phase of the study, Dr. Selikoff and Dr. Churg were joined by Dr. E. Cuyler Hammond, vice-president of epidemiology and statistics of the American Cancer Society, who had participated in an analysis of the medical effects of the atomic explosions that devastated Hiroshima and Nagasaki in 1945, and whose large-scale epidemiological studies of more than a million men and women provided a major basis for the conclusions drawn in the 1964 Surgeon General's report on the effects of cigarette smoking. Since previous studies had suggested that lung cancer associated with asbestosis seldom develops until twenty years after initial exposure to asbestos dust, Dr. Selikoff and Dr. Hammond decided to limit their first analysis to the six hundred and thirty-two men who were on the union rolls as of December 31, 1942. Taking the men's ages into consideration, Dr. Selikoff and Dr. Hammond then set about comparing the number and causes of death among them with those of the general male population in the United States. The results were depressing. According to the standard mortality tables, two hundred and three deaths could have been expected among the six hundred and thirty-two workers. Instead, there were two hundred and fifty-five, not counting seven men who had died before incurring twenty years of exposure—an excess of twenty-five per cent.

The reason for the excess was not hard to find. The fact that twelve of the deaths were attributed to asbestosis was not particularly surprising, but where six or seven deaths from cancer of the lung, pleura, or trachea were to be expected, there were actually forty-five. And where nine or ten gastrointestinal cancers were to be expected, there were twenty-nine. Since the death rate from lung cancer was known to be more than ten times as high among cigarette smokers as among nonsmokers, Dr. Selikoff and Dr. Hammond realized that they would have to take the smoking habits of the asbestos-insulation workers into account if their findings were to have solid validity. It was, of course, impossible for them to ascertain this information with accuracy in the cases of the two hundred and fifty-five men who had died, so, for purposes of calculation, they assumed that all six hundred and thirty-two men had smoked a pack or more of cigarettes each day, and they demonstrated that even if this had been the case it would have produced a lung-cancer death rate only three and a half times that of the general male population. Cigarette smoking, therefore, could not explain the fact that in this group of asbestos-insulation workers the rate of death from lung cancer was seven times the expected rate.

Because of this study's objectivity, its scope, and its thoroughness, it had a great impact on the medical community. The findings were reported to the annual convention of the American Medical Association in June of 1963—a month before the Industrial Hygiene Foundation began its survey of the Tyler plant—and they were published in the spring of 1964 in the *Journal of the American Medical Association*. It was the first study ever made that had taken a large enough group of asbestos workers from a point far enough back in time and followed them long enough to determine unequivocally what their health experience had been. Unlike almost all the previous investigations, which indicated simply that there was a connection between asbestos and var-

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ious kinds of cancer, it was based upon the incidence of disease within a defined population, and thus answered a fundamental epidemiological question of how many cancers had developed among how many persons exposed. In doing so, it furnished the first incontrovertible evidence that industrial exposure to asbestos was hazardous; it established sound methodology for future studies; and it marked a turning point in the views held by doctors and health officials around the world.

In October of 1964, in order to review the data that had already been collected and to discuss theh problems awaiting solution, the New York Academy of Sciences sponsored an international Conference on the Biological Effects of Asbestos, which was held at the Waldorf-Astoria and was attended by more than four hundred scientists. In addition to the statistics provided by Dr. Selikoff and Dr. Hammond on the incidence of asbestosis and cancer in the insulation workers, there were dozens of reports on the occurrence of disease in people exposed to asbestos. Some of the most alarming information was provided by Dr. J. G. Thomson, of South Africa, who reported finding what appeared to be asbestos bodies—inhaled fibres that have been altered by the reaction of lung tissue, and coated with a colloidal substance rich in iron—in the lungs of one in four people coming to autopsy at random in Capetown. Although asbestos bodies are regularly seen in the lungs of asbestos workers, this discovery indicated that asbestos was becoming a common contaminant in the community at large. There was also a report that mesothelioma was afflicting people who had had only minor exposure to asbestos. This tumor, which takes from twenty to forty years to develop, was previously so rare that it was known to occur in only about one in ten thousand deaths in the general population.

By the time of the international conference, however, it was being found increasingly—not only in people who were exposed to asbestos in their workbut also in people who lived in the vicinity of asbestos mines and dumps, or factories where asbestos products were manufactured, or who simply lived in the same house with workers who came home with asbestos dust on their clothes. Perhaps the most striking confirmation of this came from London, where Dr. Muriel L. Newhouse, of the Department of Occupational Health at the London School of Hygiene and Tropical Medicine, investigated seventy-six cases of mesothelioma that had been ascertained by autopsy or biopsy in the London Hospital. To no one's surprise, thirty-one of the seventy-six patients had worked with asbestos, but, in addition, eleven of the forty-five who had not worked with asbestos had simply lived within half a mile of an asbestos factory, and nine others—seven women and two men—were relatives of asbestos workers.

Most of these women had washed their husbands' work clothes regularly. Both of the men in this group, when they were boys of eight or nine, had bad sisters who worked in asbestos-textile factories. One of the sisters had been employed as a spinner from 1925 to 1936, and had died of asbestosis in 1947, at which time it was determined at an inquest that "she used to return from work with dust on her clothes." Her brother, who had apparently had no other sustained exposure to asbestos in his lifetime, died in 1956 of a pleural mesothelioma.

Subsequently, in the United States, there were similar findings in a number of places. For example, the proprietor of a junk yard next to the UNARCO factory in Paterson died of mesothelioma, and so did the engineer who first developed the amosite pipe covering manufactured by the company for the Navy, as did his daughter, whose only known exposure to the mineral was that she sometimes played with samples of asbestos products her father brought home for his family to examine. As a result of such incidents, scientists were forced to revise their idea that asbestos was only an industrial hazard, and to give serious consideration to Dr. Thomson's prediction of danger to untold numbers of people in the general community.

Such consideration proved to be well founded, for since then the presence of asbestos bodies in the lungs of ordinary urban dwellers has been confirmed by studies made in Miami, London, Belfast, Pittsburgh, and New York City, where, in a recent investigation conducted by Dr. Arthur M. Langer, the chief mineralogist at the Mount Sinai Environmental Sciences Laboratory, electron-microscope examination of representative samples of tissue showed chrysotile asbestos to be present in the lungs of a hundred and four out of a hundred and twenty-eight people coming to autopsy at random in three city hospitals.

The attitude of the asbestos industry at this time can perhaps be best illustrated by a cautionary letter that was sent to Mrs. Eunice Thomas Miner, the executive director of the New York Academy of Sciences, on October 26, 1964, just after the Conference on the Biological Effects of Asbestos ended, by lawyers representing the Asbestos Textile Institute—an association of asbestos manufacturers that includes the Johns-Manville Corporation, Raybestos-Manhattan, Inc., and Uniroyal, Inc. The letter began by stating that all member companies of the institute shared a grave concern over recent articles carried in local and national newspapers concerning mesothelioma. It went on to say that "innocent but unwise treatment of research data in public discussions, or leaving it to laymen to appreciate the carefully phrased limitations and qualifications, can cause reactions that are not justified by the state of scientific knowledge," and it urged caution in the discussion of medical research into asbestos disease, "to avoid providing the basis for possibly damaging and misleading news stories." It concluded by warning the New York Academy of Sciences that although the right to discuss these subjects was clear, "the gravity of the subject matter and the consequences implicitly involved impose upon any who exercise those rights a very high degree of responsibility for their actions."

During 1966, the Academy sent out thousands of copies of its report of the conference to doctors, officials of state and federal health agencies, and custodians of medical libraries all over the country, and from 1965 on there were many articles in leading medical journals and dozens of newspaper stories concerning new and alarming data that had been developed about the perils of inhaling asbestos. As a result, it seems highly probable that by late 1967 the industrial-health officer of any responsible company engaged in the manufacture of asbestos products would have been given pause by the kind of report that Dr. Grant received from Destefano in September of that year concerning the levels of asbestos dust in the Tyler factory. In fact, considering Dr. Grant's credentials, any other response would have been astonishing, for in addition to being medical director of the Pittsburgh Plate Glass Company and medical consultant to Pittsburgh Corning, he was a member of the American Medical Association, the American Industrial Hygiene Association, and the American Academy of Occupational Medicine, and would one day become president of the American College of Preventive Medicine.

In any case, in December of 1966 Dr. Grant paid a visit to Dr. George A. Hurst, clinical director of the East Texas State Department of Health that happens to be in Tyler—and asked him to conduct a medical survey of the workers at the Pittsburgh Corning plant to determine if they were encountering health problems as a result of their exposure to asbestos. Dr. Hurst immediately set about designing a study of the workers, which included physical examinations, questionnaires, X-rays, and plumonary-function tests. On February 3, 1967, having received approval from his superiors at the Texas State Department of Health, in Austin, he wrote Dr. Grant that the study could be conducted at a cost to Pittsburgh Corning of forty-two hundred dollars, and that, upon Dr. Grant's approval, it would be started by the first of May and completed as soon as possible.

On March 7th, however, Dr. Grant wrote a letter informing Dr. Hurst that Pittsburgh Corning had decided to forgo the proposed study in favor of some studies that would be conducted by Dr. Lewis J. Cralley, who was associate program chief for field studies and epidemiology in the Public Health Service's Division of Occupational Health, in Cincinnati. Dr. Grant explained that the Public Health Service had been interested for some time in doing environmental and medical studies of the asbestos-products industry, and had recently agreed to include Pittsburgh Corning's plants in Tyler and Port Allegany in the environmental study. According to Dr. Grant, the Public Health Service did not then have sufficient funds to perform the medical study but hoped to receive additional money for that purpose in July. "For this reason, I would like to hold off until July an making a final decision on your proposed medical study," he wrote Dr. Hurst. "Our management is vitally interested in accomplishing the medical study but would like the U.S.P.H.S. to accomplish it as part of their total study. If U.S.P.H.S. can't do the medical study, they would like to consider your proposal further."

An environmental survey of the Tyler plant, which consisted of taking eighty-two samples of air in the factory, was conducted on March 20, 1967, by engineers sent there by Dr. Cralley. However, more than a year passed before Dr. Cralley's people got around to informing Pittsburgh Corning of the results of the survey. The report was dated March 27, 1968, and it was sent to J. W. McMillan, the works manager of the Tyler plant, with copies to Dr. Grant and Dr. Cralley. In many respects, McMillan must have found it a baffling document. On the one hand, it informed him that when twenty-seven of the air samples collected in his factory were analyzed by a standard method, dust concentrations exceeded the threshold limit value of five million particles per cubic foot "in a number of locations." On the other hand, it indicated that when the air samples were analyzed by a new method in use in Great Britain (and soon afterward adopted in the United States), asbestos-fibre counts were considered high in forty-four of the fifty-five other samples. (The fact was that in five of the samples the asbestos-fibre count was twenty to thirty times the range that was considered high by the British Occupational Hygiene Society. Moreover, with the exception of Pittsburgh Corning's plant in Port Allegany, where asbestos-dust levels were also very high, the over-all asbestos-fibre counts in the Tyler factory were far greater than those measured in any of some thirty other asbestos-products factories that had been surveyed by the Division of Occupational Health during the previous three years.) In spite of this, the report made no mention that a health hazard might exist at the Tyler plant, nor did it advise the works manager of the factory to improve the ventilation system or to institute better housekeeping practices—or, indeed, to correct any condition that might have led to the excessive fibre counts it described. Instead, the report concluded by telling him that "your cooperation in this study is sincerely appreciated and the data gained from your plant are of considerable value." It is not known whether the works manager had the benefit of any medical interpretation of the report. Nor is it known whether he had any other way of ascertaining the dimensions of the health hazard that existed in his factory. It is known, however, that two years later he died of mesothelioma.

Since the primary responsibility of the Division of Occupational Health was to protect workers from occupational disease, the omission from its report of any concern for the health of the workers at the Tyler plant seems puzzling, to say the least. Part of the trouble undoubtedly stemmed from the roundabout manner in which the Occupational Health people had to go about their business, for at the time they had no legal authority to enter and inspect factories and no enforcement power of their own. To gain access to factories, they had to be expressly invited by state departments of labor, or by the few state departments of health that had rights of access, or, as in the case of Pittsburgh Corning's Tyler plant and the other asbestos plants they were studying, by the companies that owned the factories. Since the Occupational Health people usually had to go hat in hand to industry in order to initiate their asbestos field studies, they appear to have felt a certain constraint about using the information they gathered. For example, in making arrangements to gain access to plants and take air samples, field-studies engineers invariably gave oral assurance to plant management that the identity of individual factories would be kept confidential and would be released only to the appropriate state agencies. In practice, however, the Division of Occupational Health almost never forwarded interpretations of the health consequences of its findings to state agencies, and in most cases it didn't even send them the sampling data—the report on the Tyler plant being no exception—and that, in effect, prevented any possibility of action to remedy any health hazards. The pledge of confidentiality, of course, precluded any possibility that the data collected in the surveys would be made known to the workers whose health was being affected or to the unions representing them. Moreover, in order not to embarrass management or make workers apprehensive, the government engineers who took air samples during the environmental surveys not only were forbidden to discuss the nature of their activities with any workers they encountered but were also instructed not to wear respirators, which would have afforded them some protection against the hazard of inhaling asbestos dust. As a further extension of this solicitous policy toward industry, the Occupational Health people were careful not to alarm management by reporting in writing the existence of health hazards in any of the asbestos factories they surveyed or by recommending improvements in ventilation equipment and housekeeping procedures to reduce the levels of asbestos dust. In short, they simply took air samples, analyzed them, and reported fibre counts, without drawing any inference as to what the fibre counts might mean in terms of the health and well-being of the men who were exposed to them.

In order to understand more fully what lay behind this practice, it might be helpful to examine the attitude toward asbestos disease held by the people who were in charge of the asbestos field studies at that time. As it happens, I spent several hours one afternoon in March of 1968—a week or so before the report on the Tyler plant was sent out—discussing the asbestos problem with Dr. Cralley and some of his associates in the Division of Occupational Health. At the time, I was looking into the biological effects of asbestos, and I had flown out to Cincinnati to see Dr. Cralley at the suggestion of Dr. Murray C. Brown, who was then chief of the Division of Occupational Health, with offices in Washington, D.C. Dr. Cralley, who received a Ph.D. in industrial hygiene from the State University of Iowa, had joined the Public Health Service in 1941. At the time of our meeting, he had been in charge of epidemiology and field studies for

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the Division of Occupational Health for nearly four years. He was a fellow of the American Public Health Association, a past chairman of its Occupational Health Section, a past chairman of the American Conference of Governmental Industrial Hygienists, a a member of the Committee on Asbestosis and Cancer of the International Union Against Cancer, and an adjunct assistant professor of environmental health at the University of Cincinnati.

At the beginning of our conversation, Dr. Cralley explained that the asbestos-field-studies program had two components—an environmental team, which has been taking dust counts in asbestos-textile and friction-materials plants since 1964, and a medical-epidemiological team, which would soon begin to give X-ray examinations, pulmonary-function tests, and blood tests to five thousand men who worked in these factories. He did not tell me that his engineers had already conducted environmental surveys of Pittsburgh Corning's insulation plants in Tyler and Port Allegany, perhaps because the initial focus of the field-studies program was into other areas of the asbestos-products industry, and these two surveys were exceptions. According to Dr. Cralley, the purpose of the field-studies program was to establish criteria for a possible lowering of the threshold limit value for asbestos. It would take many years to develop these criteria, however, for Dr. Cralley's medical studies of the asbestos-factory workers were designed to proceed from the time of first examination, rather than to reconstruct the events of the past, as Dr. Selikoff's and Dr. Hammond's study of the asbestos-insulation workers had done. Dr. Cralley explained that it would take from two to four years to complete the first medical examinations of the five thousand men he proposed to study, and that if funds were available the men would be reëxamined every five years thereafter. "By following these men for the next fifteen or twenty years, we hope to establish a dose-response relationship for asbestossis," he told me. "Then we'll try to determine what level of exposure carries with it no discernible health hazard."

When I asked Dr. Cralley if this twenty-year-from-now evaluation would take into consideration the development of lung cancer and mesothelioma, he replied that it would not—that he was interested only in asbestosis. I then asked him about the medical studies indicating that mesothelioma could occur with minor exposure to asbestos, and he shrugged and replied that in his opinion the association between mesothelioma and asbestos was not proved.

At this point, Dr. William S. Lainhart, assistant chief of field studies in charge of the medical-environmental team, who was sitting in on our talk, explained that since the main purpose of the program was to trace the natural history of asbestos disease, little would be known about the incidence of lung cancer or mesothelioma until the five thousand men under study were reëxamined in future years. "Ideally, we'd like to take a bunch of twenty-year-olds, put them into an asbestos plant where we know the exact dust levels, and observe them for the next fifty years, or until they die," he said. "Of course, we can't do that. We have to devise studies that are practical. For this reason, we estimate that it will take us from fifteen to twenty years to evaluate with any accuracy the medical effects of today's environment in the asbestos industry."

When I asked about the high rate of asbestosis, lung cancer, and mesothelioma that was already afflicting workers in the asbestos industry, Dr. Cralley told me that such diseases were the result of exposures sustained over the past twenty years or so, and that because great improvements had been made in ventilation systems and industrial-hygiene procedures in the meantime, he expected to find much less disease in the future. When I asked him what he would consider a high rate of disease in the men he proposed to examine, he replied that he would not care to estimate. "We'll have to come to that when we come to it," he said. "Remember that practically everyone is susceptible to chest disease to some extent, and that you can get chest disease even from digging in your garden. With the means we now have at hand, we can only *assume* that asbestosis and other diseases are related to asbestos exposure. Our first priority, therefore, is to study over five thousand men over a long period, and use our observations of what happens to them as the criteria for developing a new standard."

At the close of our meeting, I asked Dr. Cralley why, in view of the fact that asbestosis and cancer had afflicted great numbers of asbestos workers since the turn of the century, it had taken so long for the government to begin studying asbestos in earnest. Dr. Cralley said he didn't know. "All I know is that the first real interest came from industry," he told me. "They asked for our help back in 1964, and they have cooperated with us magnificently."

Since it was my understanding that the asbestos industry had never been particularly eager to have its operations scrutinized, I was surprised to hear this, and asked Dr. Cralley what segment of the industry had made the request for help and cooperated so magnificently. "The Asbestos Textile Institute," he replied.

Whatever interpretation one wishes to place upon the rather leisurely approach to the problem of asbestos disease by the administrators of the asbestos-field-studies program, the fact remains that during the first seven years of its existence the program placed no emphasis at all upon control of dust levels in asbestos factors, or upon preventive measures for the workers who were exposed to the dust. Indeed, almost all the meaningful data about dust levels in asbestos factories which were acquired by the program between 1964 and 1971 simply accumulated in the files of its Cincinnati offices, as did all the data on the medical examinations of asbestos workers it conducted after 1968. For its part, the asbestos industry seems to have been quite content with this quiet state of affairs. On the one hand, it could state publicly that, with its assistance, the United States Public Health Service was investigating the possible hazards of industrial exposure to asbestos. On the other hand, it could rest assured privately that, because of the long-term nature of these studies, no information would be forthcoming for many years, and that, because of the pledge of confidentiality, none of it would find its way into the hands of anyone who might seek to remedy any hazards that were found in the meantime.

As for the Tyler plant, it seems to have been considered a kind of fluke by almost everyone concerned. By March of 1968, the medical study of the workers in which Pittsburgh Corning was supposed to be vitally interested was either forgotten or held in abeyance. Dr. Grant never did anything further about the study that Dr. Hurst had designed, and Dr. Cralley and his associates in the Division of Occupational Health never got around to conducting their study. Meanwhile, as the health situation at the Tyler plant was going from bad to worse to appalling, a parade of government inspectors continued to troop through the place without any apparent awareness of the hazards that were staring them in the face. On February 13, 1969, still another safety-and-health inspection of the factory was conducted, this time by industrial-hygiene engineers from the Dallas regional office of the United States Department of Labor's Wage and Labor Standards Administration. The Department of Labor inspectors were authorized to enforce the industrial-health regulations of the Walsh-Healy Act of June 30, 1936, which had been amended to apply to companies holding federal contracts in excess of ten thousand dollars. They found a number of unsatisfactory conditions in the plant, including, again, a substandard ventilation system and inconsistent use of respirators by the workers, and they proceeded to take air samples in six areas of the plant to determine the asbestos-dust levels. By that time, in spite of the foot-dragging of the Division of Occupational Health, the American Conference of Governmental Industrial Hygienists had proposed that the threshold limit value be lowered from five million particles per cubic foot (the standard that had been in effect for more than twenty years) to two million particles per cubic foot, the first of a series of downward revisions they were to consider—each an admission that previously recommended guidelines had allowed workers to inhale concentrations of dust now deemed harmful. (The two million particles were considered the equivalent of twelve asbestos fibres longer than five microns per cubic centimetre of air—five microns being one-five-thousandth of an inch, and a cubic centimetre of air being an amount equal to what might be contained in a small thimble.) The Department of Labor inspectors, however, not only had no equipment to measure asbestos-fibre counts in terms of the proposed conference standard but analyzed the air samples they took in terms of a standard applicable not to asbestos, a known carcinogen, but, rather, to nontoxic nuisance dusts, such as wood dust and chalk powder. As a result, they failed to realize that even the new standard for asbestos was being exceeded dozens of times over in the Tyler plant, and contended themselves with recommending that Pittsburgh Corning issue respirators to employees working in dusty areas of the plant. What seems especially ironic about this is that back in the forties, when UNARCO was operating its Paterson factory—the one upon which the Tyler plant was modelled—not only had it paid its employees five cents extra an hour to wear respirators, which they were obliged to do by insurance underwriters anyway, but it had also repeatedly pointed out to the workers that wearing respirators was a precaution that should always be taken in any absestos factory, and had threatened to fire men who refused to wear them.

As for the inadequate ventilation system, the Department of Labor inspectors recommended in their report (which was sent to James H. Bierer, the president of Pittsburgh Corning, and to Charles E. Van Horne, who had recently become the manager of the Tyler plant) that the company "make a study of the present system with professional advisers and come up to standard, or present qualified proof that the present system is operating, within the minimum specified ventilating range." Instead of reinspecting the Tyler plant to make certain that the company had complied with these recommendations, however, the Department of Labor people simply took Pittsburgh Corning's word that approved respirators would be issued to its employees and that the ventilation system would be improved. Indeed, nobody from the Department of Labor visited the factory again until November of 1971.

For its part, Pittsburgh Corning asserts that by May of 1969 the wearing of approved respirators was required for all employees in the Tyler plant—an assertion that is denied by most of the men who worked there—and that the ventilation system had been duly studied with an eye to improving it. During 1969, the company did indeed engage the services of Dr. Morton Corn, professor of occupational health at the Graduate School of Public Health of the University of Pittsburgh, who visited the Tyler and Port Allegany plants and proposed some engineering controls to bring asbestos-dust levels in them down to recommended limits. But if any significant improvements were made in the ventilation system of the Tyler plant, they were clearly not sufficient to bring the dust levels within such limits. In January of 1970, engineers from Dr. Cralley's group at the Division of Occupational Health—which by then had become the Bureau of Occupational Safety and Health—returned to the factory and took seventeen air samples, and these showed the average airborne-asbestos level to be more than double the proposed twelve-fibre standard. In keeping with earlier practice, however, the engineers chose not to point out the existence of any possible health hazard in their report to Pittsburgh Corning, or to make any recommendations for lowering asbestos-dust levels in the Tyler plant. Nor did they forward their findings to the Texas State Department of Health or to any other agency with enforcement powers. Thus did the Bureau of Occupational Safety and Health add to the series of virtually meaningless surveys that had begun back in July of 1963, when Pittsburgh Corning engaged the Industrial Hygiene Foundation of America to evaluate the asbestos-dust hazard in the Tyler plant. During those six and a half years, five separate studies and inspections of the factory had been conducted, and more than a hundred samples of air had been gathered and transported to laboratories in various parts of the country, where they had been counted, weighed, assayed, and painstakingly analyzed by industrial hygienists, who, depending on what standard they were using, had reported their findings in terms of dust particles per cubic foot or dust weight per cubic metre or fibre counts per cubic centimetre but in terms of what the dust and fibres that the workers were inhaling might be doing to their health.

By this time, however, some preliminary data concerning the mortality experience of the men who had worked in the UNARCO factory in Paterson were being developed, and what the data revealed might have led one to anticipate a most unhappy fate for many of the workers at the Tyler plant. With the aid of a grant from the National Institute of Environmental Health Sciences, which had become concerned about the potential asbestos hazard to the general public, and wanted accurate data concerning it, Dr. Selikoff set up an asbestos-control program in Paterson in 1968, and had begun to trace the sixteen hundred and sixty-four men who had been employed at the Paterson plant between 1941, when it opened, and 1954, when Union Asbestos closed it and transferred its operations to Tyler. This was a laborious process, for Dr. Selikoff and Dr. Hammond had only the names of the men to go on, and addresses for them that were from fourteen to twenty-seven years old. By January of 1970 they had managed to trace most of the nine hundred and thirty-three men who had worked at the factory for at least a year between 1941 and 1945, and who if they were still alive had passed the twenty-year mark since their initial exposure to asbestos dust. They were also able to collect death certificates for almost all of the four hundred of these men who had died. As in the case of the insulation workers in New York Local 12 and Newark, for, even though the study was incomplete, the death certificates showed an extraordinarily high frequency of death resulting from asbestosis, lung cancer, gastro-intestinal cancer, and mesothelioma.

Meanwhile, Dr. Selikoff had continued to maintain a close watch on the insulation workers' health, paying particular attention to those men with more than twenty years' experience, whom he examined once or twice a year. He was thus able to detect symptoms of illness in many of these men * * * way of emphasizing this possibilty, he pointed out that among the insulation workers there were as many excess deaths resulting from mesothelioma as from asbestosis, and twice as many excess deaths resulting from lung cancer. In spite of the alarming data supporting Dr. Selikoff's recommendation for a lower level, the bureau's asbestos experts appear to have been unconvinced that such action was necessary. A year later, when the bureau finally got around to proposing a standard for asbestos, it settled upon the twelve-fibre standard. As usual, the Bureau of Occupational Safety and Health was lagging far behind, for by this time—the autumn of 1970—the Conference of Hygienists had proposed lowering the level for asbestos to five fibres.

To more fully comprehend the absurdity of such proposals and recommendations, one should know that there are always many fibres smaller than five microns in length in any amount of air containing asbestos dust. In fact, most experts in the field al-

dust. In fact, most experts in the field readily acknowledge that there may be hundreds, if not thousands, of these smaller fibres, or fibrils—tinier particles into which asbestos fibres readily fragment—simultaneously present for each one longer than five microns. (Indeed, if it were not for the electron microscope, the extent to which asbestos is fibrous would be difficult to believe, for approximately a million individual fibrils can lie side by side in a linear inch of chrysotile asbestos, whereas about four thousand glass fibres—such as those found in various insulation materials—or six hundred human hairs can be aligned along the same distance.) Little is known about the disease potential of fibres smaller than five microns in length; nor does anyone know how many asbestos fibres of any length must be inhaled in order to induce scarring of the lungs, cancer, and mesothelioma. Why, count only fibres longer than five microns—which, in effect, constitute only a tiny portion of the total? The reason is simply that the average industrial-hygiene laboratory is equipped with an ordinary phase-contrast optical microscope, capable of resolving only relatively large particles, whereas most particles smaller than five microns can often be seen only by electron microscopy, which is expensive and not readily available. Hence, even though recommended standards of two, five, or twelve fibres greater than five microns in length per cubic centimetre, or thimbleful, of air might actually reflect a hundred, or even a thousand, asbestos fibres per thimbleful, such standards have continually been justified on the basis of economic feasibility, sheer convenience, and wishful thinking—in other words, in the hope that counting only the larger particles would at least serve as an index for measuring the contamination of the air being studied. As for how these patently and admittedly inaccurate counts of fibres per thimbleful can be translated in terms of the lungs of asbestos workers, it should be pointed out that in a normal eight-hour working day a normal worker will breathe in and out about eight cubic metres of air. Since each cubic metre contains a million cubic centimetres, or a million thimblefuls, the worker is breathing in and out eight million thimblefuls of air each day. Thus, an asbestos worker toiling in an environment that is supposed to contain, say, only two fibres greater than five microns in length per thimbleful of air can in fact be inhaling anywhere from eight hundred million to eight billion asbestos fibres and fibrils of all sizes each day.

No one knows for sure how many of these inhaled particles may subsequently be exhaled, but recent studies of the aerodynamics of asbesto fibres suggest that as many as fifty per cent of the fibres may well be retained in the lungs. Not that anyone needs aerodynamic studies to prove that the lungs will retain vast numbers of asbestos fibres. That has been proved beyond a doubt by Dr. Lanber, of the Mount Sinai Environmental Sciences Laboratory, who, using electron microscopy to analyze lung-tissue specimens in autopsies of asbestos workers, has been able to calculate that as many as a hundred thousand billion to a million billion asbestos fibres and fibrils had accumulated over the years in the lungs of some of them. However, even as late as the autumn of 1970, no one in the Bureau of Occupational Safety and Health or, for that matter, in the independent medical community (let alone in the boardrooms of the asbestos industry) was talking about the hazard in terms of human lungfuls of literally billions upon billions of asbestos fibres. Everyone was talking about it, as almost everyone still it, in the euphemistic terms of thimblefuls of air contining two, five, or, at the very most, a dozen fibres. In this way did a few needles become the metaphor for—indeed, the medically and scientifically accepted definition of—a whole haystack.

At the end of 1970, however, an event occurred that showed some promise of overcoming the ignorance, laxity, and confusion that had so long enveloped the asbestos problem and other occupational-health problems. On December 29th, after two years of prodding from industrial unions, led by the United Steelworkers of America and the Industrial Union Department of the A.F.L.-C.I.O., Congress passed Public Law 91-596—the first comprehensive occupational-health legislation it had enacted since the Walsh-Healey Act of 1936. Known as the Occupational Safety and Health Act of 1970, Public Law 91-596 sought to "assure safe and healthful working conditions for working men and women," and under its terms the federal government was authorized to develop and set mandatory occupational-safety-and health standards applicable to any business that engaged in interstate commerce. The Secretary of Labor was given the authority to promulgate improved standards, and to enforce them by conducting inspections of factories and other workplaces and by issuing citations and imposing penalties if the standards were violated. The Department of Health, Education, and Welfare was made responsible for developing criteria for the establishment of the safety and health standards, including regulations for dealing with toxic materials and harmful physical agents and for instituting education and training programs to produce an adequate supply of manpower to carry out the provisions of the Act. So that the department could perform these functions, the Act provided for a National Institute for Occupational Safety and Health, called NOISH, which replaced the Bureau of Occupational Safety and Health, and which was also given authority to enter factories for inspections and investigations, but, since the Act did not go into effect until April 28, 1971, and since NOISH did not begin its operations until June 30th of that year, little or nothing was done during the next few months to resolve the problem of industrial exposure to asbestos. This delay was disheartening to many trade-union people and to independent medical researchers, who had hoped for quick action on a new asbestos standard. However, the business-as-usual attitude that had characterized government policy toward the operations of the asbestos industry for so long was about to be shattered by a series of disclosures that, fittingly, would have their apotheosis in the revelation of the atrocious working conditions that had prevailed through the years at the Tyler plant.

The new turn of events got started on May 20, 1971, when industrial hygienists from the Meadville office of the Pennsylvania Department of Environmental Resources sent Pittsburgh Corning a report on some recent inspections they had made at the company's insulation plant at Port Allegany, a small town in the northwestern part of the state. The Commonwealth of Pennsylvania had not yet adopted the standard of twelve fibres per cubic centimetre, so the hygienists who inspected the Port Allegany plant were using the long-outmoded standard of five million particles per cubic foot, which is roughly the equivalent of thirty fibres cubic centimetre. Even though Pittsburgh Corning had installed some new ventilating equipment in the factory during the previous two years, the inspectors found that dust levels exceeded the old standard in five of twenty-five air samples. In one of the samples, the count was more than twenty-six million particles, which meant that there may have been approximately a hundred and fifty fibres per cubic centimetre of air in that location—five times the outdated standard. Such dust levels—and even higher ones—had, of course, been found and ignored in the Tyler plant for years, and the management of Pittsburgh Corning may well have come to expect this process to be repeated elsewhere. The Pennsylvania inspectors, however, gave the company sixty days to improve the ventilation system and institute better housekeeping practices to reduce dust levels at the factory.

While Pittsburgh Corning's managers were mulling over this unexpected situation, some personnel changes were taking place at NIOSH that would soon cause them additional problems. Having reached retirement age, Dr. Cralley was about to leave the Division of Epidemiology and Special Services, which was being reorganized into the Division of Field Studies and Clinical Investigations. A number of positions in the new division had opened up, among them that of chief medical officer, and it was filled on July 1st, with the appointment of a thirty-year-old doctor named William M. Johnson. A native of Olean, New York, Dr. Johnson was brought up in Saranac Lake, graduated from the Stanford University School of Medicine in 1968, interned at the State University of New York at Buffalo, and had just completed a two-year training program in occupational health at the Harvard School of Public Health. He had decided to fulfill his military obligation by putting in a two-year stint with the United Staates Public Health Service, and, as things turned out, it did not take him long to become immersed in his job there. Within a few days of Dr. Johnson's arrival at the NIOSH offices in Cincinnati, one of the engineers who had been conducting field studies under Dr. Cralley told him about the environmental surveys of asbestos factories that had been in the files for several years. "That engineer was particularly concerned about the situation at the Tyler plant," Dr. Johnson has recalled. "And when I started digging through the files myself, I realized he had good reason to be, for it was plain as day that there was an incredibly serious health problem down there. At that point, I went to Dr. Cralley and asked him whom I should see about the situation. He suggested that I get in touch with Dr. Grant, Pittsburgh Corning's medical consultant. However, when I called Dr. Grant, on July 13th, he told me there really wasn't much of a health problem at the Tyler plant, because the place was so dusty that people didn't stay around there long enough to get sick. He also told me that there were no plans to improve the factory's ventilation system, and that the company planned to convert from asbestos to mineral wool in the near future."

Since Dr. Johnson had received considerable instruction at Harvard in the effects of asbestos exposure, he was less than reassured by his conversation with Dr. Grant. During the next two weeks, he gathered as much information as he could about conditions at Tyler and Port Allegany; then he discussed the situation thoroughly with Dr. Joseph K. Wagoner, who had arrived at NIOSH on August 1st to replace Dr. Cralley as director of the new Division of Field Studies and Clinical Investigations. Dr. Wagoner had received his Doctor of Science degree in epidemiology and bio-statistics from the Harvard School of Public Health in 1970, and had spent ten years as an epidemiologist with the Public Health Service's National Cancer Institute, where he was instrumental in the long struggle to develop and institute standards for the protection of uranium miners, who were occupationally exposed to radioactive dust. He was as seriously disturbed about the potential health hazard at Tyler as Dr. Johnson was, and together the two men decided to make it and other asbestos-products factories their first order of business.

In the meantime, pressed by the deadline given by the Pennsylvania state inspectors for cleaning up the Port Allegany plant, and aware of Dr. Johnson's concern about conditions at the Tyler factory, Pittsburgh Corning made a move to head off some of the pressures that were building up against its asbestos operations. On August 3rd, the company filed an application for a variance from occupational-safety-and-health standards with the Assistant Secretary for Occupational Safety and Health of the Department of Labor, in Washington. Under the terms of the Occupational Safety and Health Act of 1970, the Secretary of Labor could grant a variance to an employer if he determined that the employer "has demonstrated by a preponderance of the evidence that the conditions, practices, means, methods, operations, or processes used or proposed to be used by an employer will provide employment and places of employment to his employees which are as safe and healthful as those which would prevail if he complied with the standard." Pittsburgh Corning's application for a variance was signed and submitted by E. W. Holman, the vice-president in charge of manufacturing and technology—who told the Tyler *Courier-Times* that he knew of no specific Pittsburgh Corning employee suffering from significant illness as a result of working with asbestos. In the application, Holman stated that the threshold limit value for asbestos was exceeded in some areas of the company's Tyler and Port Allegany plants, that the company had been unable to comply with the required standard because of the unavailability of effective ventilation equipment, and that the ineffectiveness of the available equipment had become particularly significant since the reduction of the standard for asbestos from twelve fibres per cubic centimetres to five. The fact that such a reduction in the official standard had not taken place but had only been published as a proposed change by the Conference of Hygienists suggests that Pittsburgh Corning's managers either were afflicted with a bad case of nerves or were trying to obscure the fact that neither factory was in compliance even with the obsolete standard of five million particles per cubic foot, let alone the twelve-fibre standard itself.

The application for a variance went on to say that as of June, 1971, the company had spent nearly two hundred thousand dollars for research and development of a mineral-wool substitute for asbestos, that it would begin to use mineral wool in some of its operations in August, and that it hoped to make a complete conversion to mineral wool at the Port Allegany and Tyler plants by the middle of 1972. As for the steps the company had taken to provide working conditions as safe and healthful as those which would prevail if the government standard for asbestos had been complied with, Holman stated that Pittsburgh Corning had supplied approved respirators and had required workers to use them; that it had also purchased and was experimenting with new respirators; that it had provided dust-collection and ventilation apparatus; that it had expanded its program of periodic medical examinations; that it had improved housekeeping procedures by the more frequent use of vacuum cleaners; and that it had "provided and will continue to provide health education programs that fully explain to its employees the health hazards associated with asbestos exposure and how they can protect themselves." In a sworn affidavit attached to the application for a variance, Dr. Grant stated that he had knowledge of the matters set forth in the application "so far as said application states that the applicant has provided for its employees health education programs that explain to said employees the health hazards associated with asbestos exposure and how they can protect themselves."

Back at the Division of Field Studies and Clinical Investigations, in Cincinnati, several weeks were to pass before Dr. Johnson and Dr. Wagoner would learn of Pittsburgh Corning's application for a variance. Meanwhile, on August 9th, Dr. Johnson called Horace Adrian, chief of the industrial-hygiene program of the Texas State Department of Health, in Austin, and told him of the extraordinarily high dust levels that had been found in the Tyler plant. Adrian told Dr. Johnson that he had never seen copies of any inspection of the Tyler plant—indeed, he gave Dr. Johnson the impression that he did not know the factory existed—and he would look into the situation as quickly as possible. A week later, Adrian informed Dr. Johnson that he was going to Tyler the next day, August 17th, to conduct a walk-through survey of the factory and to meet Dr. Grant,

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who also planned to be there. (As it turned out, the purpose of Dr. Grant's visit to Tyler on August 17th was to give the workers there an educational talk on the health hazards of asbestos exposure, which Pittsburgh Corning had already claimed to have done in its application for a variance, filed two weeks before.) On August 24th, Dr. Johnson telephoned Dr. Grant in Pittsburgh, to tell him that the Division of Field Studies and Clinical Investigations wanted to examine the workers at the Tyler plant. Dr. Grant replied that Dr. Hurst, of the East Texas Chest Hospital, had just finished giving the Tyler workers medical examinations, including X-rays and pulmonary-function tests, and he suggested that NIOSH might wish to defer its study of the men until the results of Dr. Hurst's tests could be made available.

In the light of this development, Dr. Johnson and Dr. Wagoner decided to hold off for the time being on their examination of the Tyler workers, and to conduct a medical survey of the men in the Port Allegany plant. (At that point, they had no idea that almost five years before Dr. Hurst had outlined a proposed—and rejected—medical study of the Tyler workers for Pittsburgh Corning.) On September 7th, in order to make arrangements for the survey of the Port Allegany workers, Dr. Johnson went to the plant, where he met Dr. Grant for the first time, and heard him give a talk to the workers on the health hazards associated with asbestos. According to Dr. Johnson, Dr. Grant indicated in his talk that the levels of asbestos dust at Port Allegany were not high enough to be considered dangerous to health. Dr. Grant also claimed that the dust levels were considerably lower than the ones that the insulation workers studied by Dr. Selikoff had been exposed to. (Actually, Dr. Selikoff had demonstrated that the insulation workers were exposed to levels of asbestos dust far below the twelve-fibre standard.) In addition, Dr. Grant implied that cigarette smoking was an important factor in the development of asbestosis, although such few data as are available indicate a very limited effect of cigarette smoking on lung scarring. (Dr. Grant may have misinterpreted some studies conducted by Dr. Selikoff and Dr. Hammond, which showed that asbestos workers who smoke cigarettes run eight times the risk of dying of lung cancer as cigarette smokers in general, and ninety-two times the risk of men who neither work with asbestos nor smoke.) But what Dr. Johnson found most disturbing of all was Dr. Grant's assertion that, in addition to smoking cigarettes, a man would have to undergo from twenty to thirty years of exposure to asbestos before experiencing any adverse effects. Later that day, Dr. Johnson made a point of telling Dr. Grant, in the presence of union officials, that radiological evidence of pulmonary fibrosis had been found in men with less than ten years' exposure, and that there was strong medical evidence to support the belief that lung cancer and mesothelioma could occur at exposure levels far below those that could cause asbestosis. This encounter with Dr. Grant seems to have marked a turning point in Dr. Johnson's dealings with Pittsburgh Corning, for, he has explained, "I came away from it feeling that Dr. Grant had grossly minimized the hazard of working with asbestos, and I assumed that he had probably done the same thing at Tyler on August 17." Dr. Johnson's mistrust of the company's intentions was heightened a few days after this, when he discovered that Pittsburgh Corning had filed the application for a variance with the Occupational Safety and Health Administration; he believed the application to be not only self-serving but downright false in its claim that the company had undertaken to inform its employees adequately about the hazards of working with asbestos.

In addition, Dr. Johnson and Dr. Wagoner had other reasons to fear that no immediate action would be taken to reduce the health hazard at Tyler and Port Allegany. In the middle of August, they had prepared a memorandum expressing their concern about conditions at the two plants (it also included data from Dr. Cralley's files about excess mortality among workers in several large asbestos-textile factories) and sent it to Dr. Marcus M. Key, the director of NIOSH, which had set up its headquarters in Rockville, Maryland. During August and September, as it happened, there were huge internal problems at NIOSH headquarters about how the institute should carry out its role under the Occupational Safety and Health Act and how it should coordinate its activities with those of the Department of Labor's Occupational Safety and Health Administration, which had been given responsibility for enforcing health standards under the Act. An administrative crisis ensured, with the result that no one at NIOSH headquarters could give Dr. Johnson or Dr. Wagoner any assurance that something would be done to alleviate the conditions at the Tyler and Port Allegany plants. Feeling increasingly frustrated, Dr. Johnson and Dr. Wagoner decided after the encounter with Dr. Grant that the situation was serious enough to warrant their taking matters into their own hands. The following week, Dr. Johnson telephoned Steven Wodka, the legislative aide for the Oil, Chemical, and Atomic Workers International Union, and told him about the environmental studies of dust levels in the factory which he had found buried in the files. (The two men had met previously to discuss the problem of workers exposed to beryllium at the Kawecki Berylco Industries plant, in Hazleton, Pennsylvania, where, as in the case of Tyler, the Bureau of Occupational Safety and Health had gathered data about health hazards associated with a substance that the workers were exposed to but had for a number of years neglected to inform the workers of the dangers involved.) Upon learning of the situation at Tyler, Woldka immediately sent Dr. Johnson a letter requesting that he make the environmental data available, and, on September 24th, Dr. Johnson sent them off to the union's Legislative Department, in Washington, D.C.

When Wodka discussed the Tyler situation with his boss, Anthony Mazzocchi, the director of the Legislative Department, Mazzocchi remembered Dr. Selikoff's telling him about a study that he, Dr. Hammond, and Dr. Churg were conducting of the mortality experience of the men who had been employed at the Paterson plant. Mazzocchi quickly got in touch with Dr. Selikoff, who, as it turned out, had completed the first part of the study a week or two before, and was about to present his data at the Fourth International Pneumoconiosis Conference of the International Labor Office, in Bucharest, on September 29th. When Mazzocchi told him about the environmental data on the Tyler plant that Dr. Johnson was making available to the union, Dr. Selikoff sent Mazzocchi the results of his study of the Paterson workers.

They were as alarming as the mortality data on the asbestos insulators. Of three hundred and thirty-three men who had been employed at the Paterson factory for a year or more between 1941 and 1945, eighty-eight had died by December 31, 1959, and fifteen could not be traced. However, Dr. Selikoff, Dr. Hammond, and their associates had managed to trace every one of the remaining two hundred and thirty men who were alive on January 1, 1960, and had studied their experience up to June 30, 1971. Using the standard mortality tables, Dr. Hammond calculated that no more than forty-seven deaths would normally have been expected to occur among these men during that eleven-and-one-half-year period. Instead, there were a hundred and five. Fourteen of the deaths were caused by asbestosis, and, as with the insulation workers, a large majority of the excess deaths were caused by cancer. Two or three lung cancers would have been normal, but twenty-five occurred, and deaths from cancer of the stomach, the colon, and the rectum were three times what the standard mortality tables predicted. In addition, although none would normally have been expected, there were five deaths from mesothelioma.

Mazzocchi and Wodka were profoundly disturbed at the results of the Paterson study, for they could only conclude that the similarity of operations in the two factories meant that much the same thing would happen to the men at Tyler. Meanwhile, as they were trying to decide what to do, Pittsburgh Corning was informed by the Department of Labor that no action would be taken on its application for a variance from occupational-safety-and-health standards until after a public hearing, and that no hearing could be held until the spring of 1972. Since this meant that the company would be forced to comply with existing health standards until then, and since the company had failed to prove that mineral wool could be successfully substituted for asbestos in high-temperature pipe covering, the Pittsburgh Corning people found themselves in a bind. In the early part of October, therefore, they told representativs of Local 4-202, in Tyler, with whom they were negotiating a new contract, that they might have to shut the plant, but said that they wished to consider the local union's proposals on wages, health, and safety before making a final decision. When Mazzocchi and Wodka learned of the company's action, they suspected that Pittsburgh Corning was using the threat of a shutdown to force the local union to minimize its demands for improved working conditions at the Tyler plant. After consulting with representatives of Local 4-202, the two men determined that a strict-compliance program should become part of the union's contract proposal on safety and health. They then submitted a formal request to Dr. Johnson, at NIOSH, on October 7, 1971, for a comprehensive industrial-hygiene study of the Tyler factory and a medical survey of the men who were working there. Upon receiving this request, Dr. Johnson made the necessary arrangements with Pittsburgh Corning and with the Texas State Department of Health, which had previously offered to cooperate, and a survey of the plant was scheduled for the last week of the month.

As things turned out, the NIOSH inspection of the Tyler plant coincided with a crescendo of protest that had been building up for many months over the plight of tens of thousands of workers throughout the country who were being exposed to excessive concentrations of asbestos dust. On August 3rd—the day Pittsburgh Corning filed its application for a variance—Dr. Selikoff wrote to James D. Hodgson, the Secretary of Labor, making carbon copies for leading officials of six labor unions whose members worked with asbestos, and for Dr. Key, at NIOSH. His letter said:

DEAR MR. HODGSON:

Your department has published initial standards in the Federal Register, in accordance with the Occupational Safety and Health Act of 1970. I understand that these are "initial" and that modifications may be expected as a result of research criteria being developed by the National Institute for Occupational Safety and Health.

One "standard" in the published list is so wrong, and represents such serious hazard to workmen, that I advise its urgent revision.

I refer to the standard for asbestos, which would allow workmen to be exposed to environments containing as many as twelve fibres per cubic centimeter of air. Our research in one asbestos trade—insulation work—demonstrates that work in the past in areas with levels of two to three fibres per cubic centimeter of air has resulted in a very great increase of death due to cancer and to asbestosis. Just how serious this has been may be appreciated from current statistics: at present, one in every five deaths among insulation workers is due to lung cancer, one in ten to cancer of the pleura or peritoneum, one in ten to scarred lungs or asbestosis.

The proposed level is much higher than actually *now* exists. It is so high as to make totally ineffective current efforts by both industry and labor to control this unhappy occupational health hazard.

In Great Britain, the approved level is *less than* one-fifth the standard here proposed and levels of twelve fibres per cubic centimeter for more than even ten minutes would be sufficient to require that the workman wear protective clothing and use an efficient respirator.

Mr. Albert E. Hutchinson, President of the International Association of Heat and Frost Insulators and Asbestos Workers, AFL-CIO, has calculated that there are approximately one hundred thousand men employed doing asbestos insulation work in the United States, in various unions and in various industries. Utilizing statistical calculations by Dr. E. Cuyler Hammond, director of the Department of Statistics of the American Cancer Society, it may be predicted that, if the situation remains the same and does not improve, there will be more than seventeen thousand excess deaths of lung cancer among these men, as well as almost ten thousand unnecessary deaths of cancer of the pleura or peritoneum, ten thousand wholly preventable deaths of asbestosis, and many thousand other cancer deaths, in this one trade alone. Thousands of deaths will occur in other industries, to add to the unhappy toll of this serious error.

I urge you, then, to recall this standard, and substitute one that will help protect workingmen forced to work with this dangerous material.

Although Dr. Selikoff's letter did not engender any immediate response from Secretary Hodgson, it did evoke profound concern among the union officials to whom he sent, carbon copies. When Dr. Selikoff returned to New York from Bucharest, Sheldon W. Samuels, the Director of Occupational Health, Safety, and Environmental Affairs for the A.F.L.-C.I.O.'s Industrial Union Department, invited him to attend a meeting of the I.U.D.'s ad-hoc Committee on the Asbestos Hazard, in Washington, on October 18th, so that he might present additional information, which the union people hoped would enable them to get some effective action from the Department of Labor on the problem of occupational exposure to asbestos. Meanwhile, having discovered additional reports in the old Bureau of Occupational Safety and Health files which showed excessive dust counts in a dozen more asbestos factories (there was also an incomplete study of mortality among employees of those factories, which showed an extraordinary number of deaths resulting from asbestosis among men in their forties and fifties), Dr. Johnson and Dr. Wagoner continued to express concern about the asbestos problem to their superiors at NIOSH, who they hoped would take a firm stand in advising the Secretary of Labor to promulgate a tough emergency standard for asbestos. On October 4th, feeling that the situation was getting out of hand, Dr. Johnson and Dr. Wagoner visited Dr. Selikoff in New York to exchange information about the asbestos problem in general and, in particular, about Johns-Manville's asbestos-textile factory in Manville, New Jersey, where that corporation has owned and operated the largest complex as asbestos-products factories in the world for more than fifty years. Dr. Cralley's files had yielded up several environmental studies showing that excessive dust levels had existed in the Manville asbestos-textile factory at least since 1965, when the first study was made; a 1969 medical survey showing findings consistent with asbestosis in thirty-one of a hundred and seventy-nine chest X-rays of the factory employees; and an incomplete mortality study showing, on preliminary analysis, four deaths from mesothelioma and at least ten other abestos-related deaths among a hundred and eighty asbestos-textile workers. Indeed, the situation at Manville appeared to be similar to the one at Tyler, and on a larger scale. In 1967, engineers from Dr. Cralley's office—now the Department of Field Studies and Epidemiology—had taken air samples that were not

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analyzed for asbestos fibres until September of 1971, when Dr. Johnson discovered the data in the files. That September, too, Dr. Johnson had fibre counts completed on over a hundred air samples that engineers from Dr. Cralley's division had taken at the Manville asbestos-textile plant during the spring of 1971. The fibre counts showed that even then there were as many as twenty fibres per cubic centimetre of air in some operations of the plant.

Dr. Johnson and Wr. Wagoner believed these data to demonstrate a serious and persistent health hazard at the Johns-Manville factory, and they were anxious to know if Dr. Selikoff could give them any additional information, particularly with regard to other cases of mesothelioma that might have occurred in Manville. As it happened, Local 800 of the United Papermakers and Paperworkers Union, which represented the company's production workers, had provided Dr. Selikoff with a roster of its membership several months before, and he, Dr. Hammond, and one of their associates at Mount Sinai, Dr. William J. Nicholson, had just begun a mortality study of the Johns-Manville employees, so Dr. Selikoff was able to give his visitors details on about a dozen deaths among the workers which had been caused by mesothelioma.

On October 5th, Dr. Johnson and Dr. Wagoner went to Trenton, where they met with the commissioner of the New Jersey Department of Labor and Industry and the deputy commissioner of the state's Department of Health, and told them of the health hazard that they believed to exist at the Johns-Manville plant. When they asked these officials to investigate the situation, however, they learned that the state considered it to be a federal problem and, in any case, did not possess modern fibre-counting equipment for such a task. The following day, the two men took the data they had compiled on the Johns-Manville textile factory to the New York Regional Office of the Occupational Safety and Health Administration, in New York City, only to discover that the people there did not possess adequate fibre-counting equipment, or even know how to use such equipment properly. With that, they flew back to Cincinnati and got in touch with officials of the United Papermakers and Papersworkers Union. A few weeks later, they learned something from the union people that the commissioner of the New Jersey Department of Labor and Industry had known for more than a year—that in 1969 alone the Johns-Manville Corporation had paid out $887,341 in workmen's compensation to two hundred and eighty-five employees of the Manville plant who hade become disabled with asbestosis.

At his meeting with union leaders in Washington on October 18th, Dr. Selikoff documented his contention that the Department of Labor should establish a standard for occupational exposure to asbestos to replace the current twelve-fibre standard. At the same time, he stressed the fact that any standard for asbestos exposure could be concerned only with the prevention of pulmonary fibrosis, and that little was known as to how low a standard might have to be in ordered to prevent asbestos-related cancer, which had accounted for fully three-quarters of the excess deaths among the insulation workers.

On November 4, 1971, the Industrial Union Department transmitted through George Taylor, the executive secretary of the A.F.L.-C.I.O.'s standing committee on safety and occupational health, a letter urgently requesting Secretary Hodges to use the power granted him by the Occupational Safety and Health Act of 1970 to declare an emergency standard governing the industrial use of asbestos. The letter declared that the existing twelve-fibre standard constituted "a license to jeopardize without effective restraint the lives of millions of workers," and urged the Secretary to declare an emergency standard of two fibres per cubic centimetre and to issue a bulletin prescribing that an appropriate label be affixed to each container of asbestos and asbestos products, warning workers of danger. In addition, the letter asked the Secretary to get in touch with the administrator of the Environmental Protection Agency "to enable him to investigate the necessity for invoking the imminent-danger provisions of the Clean Air Act, as amended in 1970, to protect our families and communities from the effects of ambient asbestos that escapes from the workplace."

As might be supposed, the Industrial Union Department's letter placed considerable pressure upon Secretary Hodges to take some kind of action. When he did so, however, on December 7th, he declared an emergency standard for asbestos of five fibres longer than five microns per cubic centimetre of air. This, of course, was an emergency standard only in the eyes of the Department of Labor, since it was two and a half times as great as the standard requested by the Industrial Union Department, and since the Conference of Hygienists had already published it as a proposed change. It is not known what, if any, medical data prompted the Secretary of Labor to select the five-fibre standard, or why he chose to disregard the data indicating that asbestos diseases could occur at this level of exposure. Perhaps he was seeking a middle ground that he hoped would be satisfactory both to industry and to the union people. If so, he was neglecting the responsibility placed upon him by the Occupational Safety and Health Act for promulgating standards that, even if they entailed conflict, would assure "the greatest protection of the safety or health of the affected employees." In any case, it is a pity that he was not aware of the NIOSH report on Pittsburgh Corning's Tyler plant, which was then slowly making its way through the bureaucratic labyrinth, for the story of the plant constituted incontrovertible evidence of the sorry tangle of ignorance, laxity, and lack of communication that had from the very beginning characterized government policy toward occupational exposure to asbestos. The story of Tyler also made a mockery of one of the basic assumptions behind this policy: that the government could and would force industry to abide by a numerical fibre standard, and, in so doing, could insure healthful working conditions in asbestos factories.

The NIOSH inspection, which was conducted between October 26th and October 29th, included an industrial-hygiene survey, carried out by engineers from NIOSH's Division of Technical Services, and a medical survey, performed by a three-man team from the Division of Field Studies and Clinical Investigations. The medical team was headed by Dr. Johnson, who has a vivid memory of his first look at the Tyler plant. "Two carloads of us drove in from Dallas late on the afternoon of the twenty-sixth," he recalls. "The factory was situated in an industrial district on the outskirts of town, and it consisted of a pair of wood-shell buildings, each of which was about a thousand feet long, fifty feet wide, and thirty feet high. When we arrived, we were met in the front office by Mr. Charles E. Van Horne, the plant manager, and since it was late in the day, there was just time for a quick preliminary walk-through. The place was an unholy mess. Why, compared with it, the Port Allegany plant looked like a hospital operating room! A thick layer of dust coated everything—from floors, ceiling, and rafters to drinking fountains. As we walked through the interior, we saw men forking asbestos fibre into a feeding machine as if it were hay. They obviously had no idea of the hazard involved. Further down the line, we came upon some fellows with respirators hanging around their necks, who were sitting in an open doorway eating watermelon. I hate to think of the fibre counts on those slices of watermelon. I remember turning to Dr. Richard Spiegel, one of my assistants. 'This is intolerable,' I told him. He was as shocked as I was."

It did not take Dr. Johnson and his associates from NIOSH long to realize that at virtually every stage of the manufacturing process enormous quantities of asbestos dust were being spewed out into the factory. In addition to poor housekeeping procedures, the chief cause was a grossly inadequate ventilation system. Other aspects of the plant's operation were found to be equally hazardous. The scrap-grinding machine, where refuse from various operations was made reusable, was extremely dusty and lacked sufficient ventilation equipment, and a fan near the feed hoppers simply contributed turbulence that redispersed dust into the working environment.

Moreover, both the scrap grinder and the feeding machines relied on a dust-collection system that consisted of canvas bags inside the plant, beneath the roof. These bags were periodically emptied by mechanical shaking, and when this happened huge amounts of asbestos dust were released into the air; then, after it had settled, instead of being vacuumed the dust was swept into piles with push brooms. The ventilation equipment on the saws in the finishing department was also found to be inadequate; excessive amounts of asbestos dust were escaping into the air there as well.

Because of Pittsburgh Corning's application for a variance, the NIOSH inspectors learned, the wearing of respirators had been mandatory in all areas of the plant since August. However, instead of being used for emergency or backup protection, as industrial-hygiene standards prescribed, the respirators were obvioulsy being employed in the Tyler plant as substitutes for an adequate dust-control system and for proper housekeeping. Nor did the company have any adequate program for selecting, fitting, cleaning, and maintaining the respirators worn by its employees, and many of the men were wearing them improperly. In addition to noting these hazards, the inspectors saw that the factory's lunchroom was within fifty feet of one of the dustiest operations in the plant, and that workers were allowed to enter it wearing clothes that were contaminated with asbestos. The NIOSH men also discovered that compressed-air outlets throughout the plant were being used to blow excess dust off the employees—a practice that simply reintroduced asbestos fibres into the working environment.

As a result of these multiple deficiencies in the ventilation system and in the operating procedures of the Tyler plant, Dr. Johnson and his associates were not surprised to find that, of a hundred and thirty-eight air samples taken at different locations in the factory, a hundred and seventeen exceeded the recommended five-fiber standard. (Of course, even if the Tyler plant *had* observed that standard, workers not wearing respirators would still have been inhaling at least forty million asbestos fibres in an eight-hour working day.) What astonished them, however, was how *much* the levels exceeded the recommended standard, at almost every step in the manufacturing process. In the mixing department, where the feed hoppers and the scrap grinder were situated the maximum concentration was a hundred and eighty-nine fibres per cubic centimetre of air, and the average was seventy-five. In the forming department, where the material was rolled on mandrels, the maximum concentration was a hundred and thirty-four fibres per cubic centimetre, and the average was thirty-nine.

In the finishing department, where pipe covering was trimmed and sawed, the maximum concentration was two hundred and eight fibres per cubic centimetre—an approximation, for the air sample was actually too dusty to permit an exact count under a microscope—and the average was forty-one. Even in the inspection and packing department, where the finished product was weighed, boxed, and shipped, the maximum concentration was ninety-two fibres per cubic centimetre, and the average was twenty-three—nearly double the interim standard of the Department of Labor, nearly five times the standard recommended by the hygienists, and ten times the level of exposure that Dr. Selikoff and other epidemiologists had found to be responsible for the extraordinary number of excess deaths among the insulation workers. But the true intensity of the exposure of the Tyler workers can only be appreciated when one recognizes that such concentrations of long asbestos fibres per thimbleful of air really meant that, before they were required to wear respirators in August, some of these men were inhaling up to a billion of the longer fibres each working day, and many more of the shorter ones, which were not being counted by the engineers.

Since asbestos-induced cancers generally take at least twenty years to develop, and the Tyler plant had been in operation for only seventeen years, Dr. Johnson and his associates did not yet expect to find neoplasms among the sixty-three men working there. However, in order to complement the X-rays and pulmonary-function tests that had been performed in August by Dr. Hurst, they examined the employees for rales—crackling sounds in the chest which can occur with asbestosis—and for finger clubbing, a thickening of tissue at the fingertips which often occurs with asbestosis. After comparing notes with Dr. Hurst, they determined—even without the benefit of the X-rays, which they were not allowed to see—that seven of the eighteen workers with more than ten years of employment at the factory met at least three of four criteria for asbestosis. (These criteria included, besides rales and finger clubbing, dyspnea, which is shortness of breath, and market reduction of forced vital capacity, which is an inability to take sufficient air into the lungs because of pulmonary fibrosis.) Reduced pulmonary function was also observed in some workers who had been employed at the plant for less than five years. Because of these findings, Dr. Johnson and his associates concluded that the health of the sixty-three employees at the Tyler plant had been gravely jeopardized, but they wished to have the X-rays reviewed by an expert panel of radiologists before making a definitive diagnosis of asbestosis on an individual basis. As things turned out, however, they were seeing only the tip of the iceberg, for when they got around to examining the company's employment records they discovered that a total of eight hundred and ninety-five men had worked in the plant at one time or another. Considering the disastrous mortality figures of the men who had worked at the Paterson factory between 1941 and 1945, this was disturbing news, to say the least. It also provided a chilling corollary to Dr. Johnson's first conversation with Dr. Grant, back in July, when Dr. Grant had suggested that there wasn't much of a health problem at the Tyler plant, because people didn't work there long enough to get sick.

The preliminary report of the NIOSH survey, declaring that an extremely serious occupational-health situation existed at the Tyler plant, was sent, on November 16th, to Dr. James E. Peavy, the commissioner of the Texas State Department of Health, and copies went to a number of other officials, including Dr. Key, Dr. Grant, Van Horne, and John K. Barto, the regional administrator for the Occupational Safety and Health Administration, in Dallas. Barto received the report on November 18th, and acted quickly on it, for he

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was aware that industrial hygienists from the Department of Labor's Dallas office had inspected the Tyler plant nearly three years before, and, even though they had found an inadequate ventilation system and faulty respiratory protection, had not taken any effective action to remedy the situation, or even reinspected the factory to see whether Pittsburgh Corning had corrected the defects. On November 23rd, Barto sent his assistant, Clarence R. Holder, and John P. Boyle, an industrial hygienist, to conduct still another inspection of the Tyler plant. As might be expected, their findings simply substantiated those of the survey conducted by NIOSH. On December 1st, Holder and Boyle inforced Van Horne that violations of occupational-safety-and-health regulations found in the plant included not only improper wearing of respirators but failure to examine workers to determine whether they had the physical capacity for wearing respirators, inadequate housekeeping, and insufficient dust control. They also told the plant manager that citations would be issued and penalties imposed, and that the violations would require immediate corrective action—except extensive improvements in ventilation and dust equipment, for which a later date would be Dallas, where in the next two weeks, as they awaited analysis of air samples they had taken, they wrote up a lengthy report of their inspection, which was sent to Holman, the manufacturing and technology, at Pittsburgh Corning's home office, On December 16th. In the meantime, Secretary Hodgson had declared the emergency five-fibre standard for asbestos, but since the inspectors for the Occupational Safety and Health Administration had surveyed the factory under the twelve-fibre standard published in the *Federal Register* of May 29th, they decided it would be unjust to apply the new regulation *ex post facto* to the situation at Tyler. As things turned out, their sense of fair play made little difference, for the obsolete twleve-fibre standard was exceeded—in some instances, ten times over—in forty-two of the forty-four air samples they had taken at the plant. Even so, the Occupational Safety and Health people failed to cite Pittsburgh Corning for violating any fibre standard, or even to list, in the citation for insufficient dust control, the specific dust levels they had found. Moreover, although their *Compliance Operations Manual* clearly compelled them to follow Section 17 (k) of the Occupational Safety and Health Act, which states that "a serious violation shall be deemed to exist in a place of employment if there is a substantial probability that death or serious physical harm could result from a condition which exists . . . unless the employer did not, and could not with the exercise of reasonable diligence, know of the presence of the violation," the inspectors listed the conditions they had discovered at the Tyler plant not under the heading of "Serious Violations" but under the heading of "Nonserious (Other) Violations," which, according to their manual, applied to situations "where an incident or occupational illness resulting from violation of a standard would probably not cause death or serious physical harm." If the violations had been considered serious, the Administration could have assessed Pittsburgh Corning as much as a thousand dollars for each one. For nonserious violations, the Occupational Safety and Health Administration could have assessed a penalty of anywhere from a thousand dollars each to no penalty at all, depending upon the inspector's judgment of "the severity of the injury or disease most likely to result." Given this latitude, the Administration people undertook to grant Pittsburgh Corning the benefit of every doubt. For three violations—improper wearing of respirators, failure to examine the workers to see if they could wear respirators, and inadequate housekeeping—they proposed a fine of twenty-five dollars each. For insufficient dust control, they proposed a fine of a hundred and thirty-five dollars. The total came to two hundred and ten dollars.

—PAUL BRODEUR.

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