

A.W.
Please return to OW.

Oct. 25, 1971

Mr. Leo Gallagher
Serta Mattress Co.
So. 30th & Hosmer St.
P.O. Box 1655
Tacoma, Wash. 98401

Dear Leo:

Herewith returning Bart Klein's paper to you. Apparently it is a thesis for one of his school subjects. You are so right in what you say; lack of facts and half-truths are more damaging than outright falsehoods.

I have made two copies of it. I will give one to Mr. Labbe.

We appreciate you informing us on some of the things that are going on. Many thanks.

Best regards.

Yours truly,

Owen Gallagher
Personnel Director

Encl.

cc w/encl: ALLabbe

MEMBER OF



ASSOCIATES

SERTA MATTRESS COMPANY

Division of Sound Mattress & Felt Co.

South 30th and Hosmer Street P. O. Box 1505 1655
Tacoma, Washington 98401

GR 4-8447

Oct. 22, 1971

Mr. Owen Gallagher,
% American Smelter & Refining Co.,
Ruston, Wash.

Dear Owen;

As promised I am enclosing the copy of Bart Klein study on polution by the smelter. As I mentioned I am sure he is not experienced enough to back up some of the statements he has made. However the bad thing about it he apparently is broadcasting his report and many people reading it will take it for gospel truth without checking.

One of the members of the Izaak Walton League passed copies of the report out at their meeting today. He must have had at least a dozen copies with him. While the Izaak Walton League is not a very large group they are a dedicated group on anything they undertake. I doubt if they will follow up and do anything but you cannot tell. They have around about 12 to 18 members in attendance at their meetings and are now meeting at the Queen's Buffet, 26th & Pacific for lunch with a program each week.

When you are through with this copy I would like to have it back and in the mean time you may be able to get a copy.

Sincerely,

Leo Gallagher

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Amend. Pakke, Mgr
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Tacoma

902 Magnolia Lane
Tacoma, Washington 98465

You are probably aware of the situation at our local copper smelter/refinery, the Tacoma Smelter. The Smelter is threatening mass layoffs if it is forced to remove 90% of its sulfur emissions. I have been studying this situation for the last five months. This required gathering facts and figures from experts (including ASARCO, the company who owns the Smelter). I am not an expert. I am just a person, just recently graduated from high school, attempting to understand a complex situation.

Enclosed is a detailed analyzation written by me concerning this situation, based on the facts I was able to obtain. I was able to conclude that the adverse effects of the pollutants of the Smelter are greater than most people believe, that ASARCO can easily finance the required anti-pollution, that the Smelter is not in the wrong location, and that it would be uneconomical for ASARCO to leave Tacoma. In this report I have described the past and present battles between ASARCO and environmentalists.

If you read the report you will be able to understand why I urge you to support the 90% sulfur removal figure, and why I urge you to follow through with at least one of the recommendations under the "WHAT YOU CAN DO" section.

If you read the report, I wonder if you could write me how you reacted to it. If you want more information or copies of the report, I will be happy to send it to you. Thank you very much.

Yours very truly,



Bart Klein

BK:dlc

THE TACOMA SMELTER

A REPORT ON OUR LOCAL COPPER SMELTER-REFINERY COMPLEX

From May 4-12, 1971, the State Pollution Control Hearing Board received an appeal from the Tacoma Smelter requesting a "variance" from the Puget Sound Air Pollution Control Agency's plan to control the Smelter's polluting emissions. Asking for a "variance" simply meant that the Smelter proposed a plan of their own. This Hearing Board hopes to have its decision on the plans ready in mid-autumn, 1971. After that, court action will probably result, testing the legality of the decision.

PUGET SOUND AIR POLLUTION CONTROL AGENCY'S PLAN - (The Agency)

1. By the end of 1975, 90% of the sulfur must be eliminated from the Smelter emissions so that the existing standards for ground level concentrations (g.l.c.) of sulfur dioxide will be met. These standards were adopted to protect and preserve human health, human welfare, the air environment, and the land environment.
2. To insure that the 90% removal figure is met on time, by mid-1973 the Smelter will have to remove 51% of the sulfur in its emissions.
3. In mid-1973, the Smelter will have to submit to the Agency a definite plan explaining the procedure it will follow in meeting the deadline.

SMELTER PLAN

1. The Agency must not be permitted to impose more than \$250 a day in fines(2). \$250 a day would add up, at the very most, to \$90,000 a year, a small sum for a big operation.
2. Modify the existing standards for g.l.c. of sulfur dioxide by replacing them with standards that would allow higher concentrations (2). The proposed standards of the Smelter would severely limit the effectiveness of air pollution regulation.
3. If the modification of the existing standards of g.l.c. of sulfur dioxide is not allowed, the existing standards will be met by the curtailment program and the 51% removal of the sulfur emissions(1). I question the effectiveness of this combination for the following reasons:
 - (a) The curtailment program consists of cutting down of plant operations during weather conditions that would cause high concentrations of sulfur dioxide to pollute the air of Tacoma. According to figures obtained by the Agency for the weekend of May 8, 1971 (1), the curtailment program is unreliable because of rapidly changing weather conditions and inconsistent because the program is not in operation every day. Also, the curtailment program costs the Smelter money in the form of meteorologist's

salaries, new and better equipment, and money lost because the plant is unable to operate at full capacity. ASARCO, the company who owns the Tacoma Smelter, estimates the curtailment program costs the Smelter at the moment \$500,000 a year (1). After the 51% removal program is installed, the curtailment program will not have to be as effective, but it will still cost the Smelter \$150,000 a year, according to ASARCO (1).

(b) If the 51% removal figure is met, the Smelter will continue to be in violation of the existing standards for g.l.c. of sulfur dioxide for at least a substantial number of hours each year (1). This is according to computer analyses made by Boyd Knehtel, an Agency meteorologist and data analyst (1).

(c) The Smelter fails to take in account the damage sulfur dioxide has on the community. Based on the presidential commission statement that sulfur dioxide damages the U.S. at a rate of \$8 billion annually, William Rogers, a U.W. law professor, estimates that every pound of sulfur dioxide emitted damages the community at 20¢ annually (1). Rogers, The Agency, and ASARCO estimate that the Smelter pollutes the Tacoma atmosphere at the rate of 365,000,000 pounds annually even though the Smelter at the moment removes 17% of these sulfur emissions (1). From these figures, one can compute that the Smelter now does \$73 million worth of damage to the Tacoma area community annually, that the 51% removal program would still allow \$44 million worth of damage, and that the 90% removal program would allow \$8,760,000 worth of damage. Therefore, since ASARCO claims in its Tacoma smelting and refining pamphlet that the Smelter's total contribution to the Tacoma area community comes to a little over \$20 million annually, the 90% removal program would be the only program that would be economically beneficial to the Tacoma area.

The Smelter's contribution is in the form of payroll, fuel, water, power, incidental services, and local and federal taxes.

4. No promise or guarantee that the 90% removal figure will ever be met (3).

Note - Arizona, where 8 of the 16 copper smelters in the U.S. are located, ordered its smelters to comply to the 90% removal figure in 3 years, not 5 years like the Tacoma Smelter (4). The Arizona smelters reacted as such: 7 smelters agreed to comply in the 3 year period, with only the ASARCO smelter refusing to comply (4).

OUR HEALTH, WELFARE, PROPERTY AND VEGETATION

A quote by President Nixon, "In terms of damage to human health, vegetation, and property, sulfur oxide emissions cost society billions of dollars annually." (14) Another cost is the loss of amenities, such as having a view obscured by haze or smog (1). According to a poll taken by students from North Seattle Community College in December, 1970, 90% of Tacomans found the Smelter emissions objectionable (1).

Our Health and Welfare

Wrong

I quote Dr. Billingsley, the Tacoma specialist in chest diseases, who has done extensive research on sulfur dioxide and its effects on Tacomans: "Smelter pollutants, especially sulfur dioxide, harms and irritates the human body, particularly the respiratory tract and the heart system. The most susceptible are the young, the old, and the persons with heart and respiratory ailments. There are even a number of Tacomans whose lives have been restricted by these pollutants. All Tacomans, especially the ones I have just mentioned, should demand their right to live in a community free from harmful levels of these restrictive pollutants." Many of the severely affected people are patients of Dr. Billingsley. He and Dr. Disher, the Director of Environmental Health and Safety at the U.W., estimate that out of the 28,000 people living in the 11 1/2 square mile area directly south of the Smelter (8):

- 300 to 500 are children under 5 years of age with chronic bronchial asthma (8). They would be susceptible to asthma attacks under relatively heavy doses of Smelter smoke (according to the doctors) (8).
- 600 to 800 are persons over 64 years of age with chronic bronchial asthma (8). They would also be susceptible to attack under relatively heavy doses of Smelter smoke (according to the doctors) (8).
- 1,600 to 2,000 are persons with heart trouble (8). They would be troubled by Smelter pollution (according to the doctors) (8).

According to Dr. Billingsley, Dr. Disher, and Dr. Allen (Seattle specialist in pulmonary diseases), the combination of sulfur dioxide and particulate matter produces this adverse effect on human health (8). Professor Rogers, the Agency, and ASARCO estimates the Smelter gives off more than 20 tons of sulfur dioxide an hour (1), accounting for 92% of this pollutant in Pierce County (3). ASARCO estimates the Smelter contributes to the particulate matter at the rate of about 1.59 tons per day - of this 1.59 tons, 33.7% is arsenic, 22.7% is lead (3). Removal of just the particulate emissions would not be enough because the sulfur dioxide would combine with the other particulate matter in the air.

How do you know

If you suffer from chest constriction, headache, vomiting, or respiratory ailments, it can be blamed in part on the 500 tons of sulfur dioxide poured out each day by the Smelter (9). If you suffer from weakness and anemia, it can be blamed in part on the 134 tons of lead poured out each year by the Smelter (9). If you suffer from jaundice, blood or kidney ailments, it can be blamed in part on the 198 tons of arsenic poured out each year by the Smelter (9).

The Smelter's record in caring for our health is miserable. Under Agency regulations, the sulfur dioxide ground level concentration (g.l.c.) standards can be exceeded a certain number of times in a given period without being considered violations of the regulations. When the "frequency of occurrence" of a given ground level concentration exceeds the allowable number of times it is considered to be a violation. Between March, 1968, and August 11, 1970, the Agency recorded 544 instances when sulfur dioxide g.l.c. limits were exceeded at the Agency's 26th and Pearl Street station. Of these 544 instances, 355 were violations of the regulations. Also, between October, 1969, and May, 1970, eleven occurrences of sulfur dioxide concentrations exceeding Agency regulations were recorded at stations on Maury Island and Port of Tacoma Road. Six of these were violations (3).

Other Agency reports show that there is a close connection between these high concentrations of sulfur dioxide and complaints from people residing in the vicinity of the Smelter. That is why complaints are particularly numerous in the summer and early fall. All total, the Agency received 575 complaints in 1968, 1300 complaints in 1969, and 1700 complaints in 1970. Among comments accompanying the complaints are reports of choking sensations, nausea, and nose and throat irritations. Also many complaints go unreported because people only call the Smelter or "city hall" (3).

On August 12, 1970, the Agency upgraded its standards. By including the Washington State regulations, the sulfur dioxide g.l.c. standards became stricter. Between August 12, 1970 and March 31, 1971, 243 instances of excessive sulfur dioxide ground level concentrations were recorded at the 26th and Pearl station; 199 of these were violations of the new standards. From December 1, 1970 to March 31, 1971, another 82 occurrences of excessive sulfur dioxide were recorded at additional stations in the greater Tacoma and King County area; 53 of these were violations. This lack of concern for our health continues; the Smelter exceeded the concentration standards 56 times during May 1971 (3).

Also on August 12, 1971, the 90% sulfur removal requirement became effective. While the Agency is permitting the Smelter to violate this requirement for the next 5 years, all other industries in the Puget Sound region must comply directly (3).

The doctors and plant professors mentioned in this Our Health, Welfare, Property and Vegetation section based their conclusions on the actual conditions found in Tacoma (1). The ASARCO experts, who claimed that the sulfur dioxide now emitted by the Smelter causes little health or vegetation damage, based their conclusions on unreal conditions (1). The sulfur dioxide breathed by the people in the ASARCO expert tests contained no particulate matter (1). Also, the people used were all healthy people (1). The computer models for plant damage, made by the ASARCO expert, were theoretically correct, but practically incorrect (1). But even an

ASARCO expert stated that all available technology should be used to reduce any pollutant to the lowest level possible (1). (The Smelter is capable of removing 100% of the sulfur). He went on to say that if the technology does not exist to take a pollutant below a safe level medically, then that industry should be closed (1).

REMEMBER: THE SMELTER NOW DOES \$73 MILLION WORTH OF DAMAGE TO THE TACOMA AREA COMMUNITY ANNUALLY, WHILE CONTRIBUTING ONLY \$20 MILLION ANNUALLY. (See the Section "Smelter Plan")

How do you know

THE COST - WILL THE SMELTER SHUT DOWN OR MOVE?

ASARCO says it might close and move the Tacoma Smelter after 1975 because of the economical burden it would face in order to achieve the 90% removal figure (1). ASARCO also said it might close and move the Smelter because the Smelter's location is poor with respect to raw materials, copper markets, and the disposal of sulfur by-products (1). I question these statements for the following reasons:

The Economical Burden

ASARCO claims that to meet the 90% removal figure it would cost between \$34-60 million, thus being economically unfeasible (1). It claims it is willing to spend \$14 million of the \$34-60 million to meet the 51% removal figure (1). I question the economical burden that will be placed on ASARCO to achieve the 90% figure for the following reasons:

1. Dr. Lennart N. Johanson, professor of chemical engineering at the University of Washington, who has had wide industrial experience, estimates that ASARCO could achieve the 90% figure for between \$1 and \$10 million (1). Kennecott Copper Corp. estimates its smelter at Hayden, Arizona, a smelter which has a bigger sulfur problem than Tacoma's, will be able to achieve the 90% removal figure at a cost of \$13.5 million (4).
2. The total gross for ASARCO in 1970 was \$790 million; its profits were \$112 million according to Moody's Industrials, page 1638. ASARCO claimed, before the Tacoma Democratic Luncheon Club, that in 1970 the Smelter's gross was \$60 million. It also claimed, at the Smelter Hearings, the Smelter profits were only \$1 million (1). It is hard to believe that while ASARCO made \$1 profit for every \$7 grossed, the Smelter made only \$1 profit for every \$60 grossed. I question the Smelter's profit figure.
3. ASARCO claims in its Tacoma Smelter and Refinery pamphlet that the Smelter's total contribution (in the form of payroll, fuel, water, power, incidental services, and local and federal taxes) to the Tacoma area community comes to a little over \$20 million a year. ASARCO claims the Smelter's total gross was \$60 million. I wonder how the other \$40 million was used. I again question the Smelter's profit figure.
4. ASARCO claims that the profit for the Smelter for the next few years will be \$1 million a year (\$5 million total for the next 5 years) (1). It claims it is willing to spend \$14 million for the 51% removal program for the Smelter over the next 5 years (1). It then claims that the Smelter might cease operation after those 5 years (1). What kind of a businessman invests \$14 million for a return of \$5 million.

Have you contacted them

From these reasons, one should be able to conclude that the financial situation is not quite as ASARCO claims. I concluded that the 51% and the 90% removal programs cost less than Asarco claims, and that either the Smelter earns more profits than ASARCO claims, or the Smelter will stay in Tacoma longer than ASARCO indicates in order to pay off the cost of the removal programs. If the Smelter profits are unable to pay the cost of achieving the 51% and 90% removal figures, there are numerous other ways:

5. In 1970, while American business on the whole went down, ASARCO accumulated the biggest profits in the company's history, making over \$110 (5); a sharp increase from the \$29 million it made in profits in 1963 (5). It also has \$353 million in unused profits(5). ASARCO can afford to finance at least part of the programs. This will not hurt the local economy since not much stock is held by Tacomans, and will not hurt the U.S. economy since ASARCO is one of many copper companies.
6. The Smelter is like a service station; it usually does not buy raw materials, only refines them. Part of the cost could then be passed down to the raw material owners, usually copper miners, through the raising of smelting and refining prices. There exists a great demand for copper smelting services, according to statements made by ASARCO before the Tacoma Democratic Luncheon Club, and, therefore, the copper miners would be forced to pay. The operators of the two mines which supply 70% of the Smelter's business said that they will probably pay, mainly because they have no choice (1). The bad effects of this processing price increase on either the local or U.S. economy will be almost nil for the following reasons:

The competitive nature of the copper market will not allow any increase in copper prices. (1) The miners could not pass the extra cost to copper buyers and thus to the consumer (1). The miners would be forced to pay from their profits. Since 1/3 of the raw materials processed at the Smelter come from foreign sources, according to ASARCO(1), the impact of the extra cost on domestic miners will not be as great as one would expect. This disadvantage will be offset by the fact that the extra cost will bring more foreign money into the U.S.

- (7) The state and federal governments normally offer aid to companies whose anti-pollution costs are too high. The Washington State Revenue Department says the revenue loss resulting from the 1967 Pollution Facilities Act has reached \$2.5 million, and that the total fiscal impact for current and proposed projects would be approximately \$162.1 million (32). The loss, the Department said, is being brought about by tax exemptions and credits allowed industry for the installation of approved anti-pollution devices (32).
- (8) Various banks offer low interest loans for companies involved in controlling pollution. Chase Manhattan, for example, not only offers such loans, but also provides advisors and experts who can make the process as inexpensive as possible (6).

*You pay what
market asks.*

The Wrong Location

Most people fail to realize that the Tacoma Smelter is a combination smelter refinery, the largest in the U.S. (16). I feel the refinery section of the Tacoma Smelter is in the ideal location for the following reasons;

(a) Of the 16 refineries serving the 16 smelters of the U.S., the Tacoma Smelter refinery is the only refinery located on the western coast of the U.S. (17) It has its own deep water port. Therefore, ASARCO is the only company who would not have to pay the expensive rail fee to transport copper to a western seaport in order for the copper to be exported to the Asian countries. This results in the Tacoma Smelter being the copper bank of western U.S. Copper companies who have a copper contract with the Asian countries trade a comparative amount of copper located on the east coast with ASARCO (18). This saves domestic rail transportation of copper for both companies (18). 32,717 tons of copper produced from domestic mines were exported to Asian countries in 1969 (17), about 1/3 of the copper produced per year by the Smelter (16).

(b) Blister copper, almost pure copper, results after raw materials are smelted (16). This blister copper must then be refined (16). Because of its seaport, the Tacoma Smelter-Refinery is in a good position to handle blister copper from Peru, Chile, or Australia. 208,721 tons of blister copper was imported from these countries in 1969 (17), more than twice the amount the Smelter refinery handles per year (16).

(c) Most of the copper used in the U.S. is used on the east coast (1). One finds that, according to Interstate Commerce Commission rates, the cost to ship copper or blister copper from any of the western smelters or refineries, be it from Tacoma or El Paso, to the east coast is approximately the same (19). This cost applies almost to all the copper companies since about 93% (17) of the copper mined and smelted in the U.S. is mined and smelted in the western part of the U.S.

(d) The Tacoma Smelter is located right next door to a copper smelter (16). This saves in costs to transport the blister copper from the smelter to the refinery. Only 5 of the other 15 refineries are also situated next door to a refinery (17).

(e) In my opinion, the Tacoma Smelter is in the best position of all the U.S. refineries and smelters to handle Asian and South American raw materials because of the Smelter's combination of refinery, seaport, and smelter which has a special ability to smelt raw materials with high concentrations of arsenic (1).

64,258 tons of raw materials in the form of copper concentrate (about 25% copper) were sent to the Smelter in 1970 by the Lepanto Consolidated Mining Corp. located in the Philippines, or about 1/5 of the copper concentrate treated by the Smelter in 1970 (1).

WITH ALL THESE ADVANTAGES, IT IS NOT SURPRISING THAT MORE THAN 55,131 TONS OF COPPER WERE EXPORTED THROUGH THE CUSTOMS PORT OF TACOMA, WASHINGTON, FOR THE CALENDAR YEAR 1970 (33), about 5/8 of the amount of copper produced per year by the Tacoma Smelter (16).

One should be able to see that a refinery located in Tacoma is to ASARCO's advantage. But, what about the Smelter?

I have already described how the smelter section location is advantageous to Asian and South American raw material sources with the example of the mine in the Philippines. The smelter section is the only smelter with a seaport on the west coast. But, is the smelter section advantageous to North American raw material sources (in other words, the mines of North America)?

Most smelters are built close to the copper mines they are going to serve. This is true also of the Tacoma Smelter. It was built to serve the small mines of western Canada, Washington, Idaho, and Montana (20). The Tacoma Smelter is obviously not in the wrong location. What prompted ASARCO to claim the Tacoma Smelter was in the wrong location?

The Tacoma Smelter is like a service station; it usually does not buy the raw materials, only processes them. The Smelter usually receives its raw materials in the form of copper concentrate (21). Very little of this comes from ASARCO mines (21). Therefore, ASARCO signs contracts with copper miners to process their raw materials, which run usually for a number of years (23). Because of the 8 1/2 month long strike which ended in the spring of 1968, ASARCO lost its Canadian contracts to Japan (24). These contracts would seem important. British Columbia alone produced 423,084 tons of copper concentrate in 1970 (25), 101,092 tons more than the 321,136 tons the Tacoma Smelter treated in 1970 (1). Also, though Montana supplies about 7% of the copper mined in the U.S. per year, or about 130,000 tons of copper concentrate more than the 321,136 tons the Smelter handled in 1970 (17), most of her contracts seem to have already been taken by the Anaconda smelter in Montana. But the Smelter was not in trouble because of a lack of raw materials to process. More copper is being mined than can be smelted, especially in the southwestern part of the U.S. (24), where about 85% (17) of the copper in the U.S. is mined. With 12 of the 16 smelters in the U.S. located in the southwest (17), it is not difficult to understand that the Tacoma Smelter was not built to handle southwestern copper concentrates. The problem is that the Smelter is handling it. 170,820 of the 321,136 tons of copper concentrate processed by the Smelter in 1970 came from the Duval Corp. mines in northwestern Arizona and/or in northern Nevada (26). Also, 47,172 more tons seem to come mostly from Arizona (27). But, how much of a problem is it for ASARCO? Who pays for the extra transportation cost, and how much is it?

I feel that the Smelter would only pay for the extra cost if a true competitive nature exists between the smelters of the U.S. If competitive nature does not exist, the Smelter could pass all extra costs to the copper miner. *

I question if a true competitive nature exists between smelters for these reasons:

(a) ASARCO claimed before the Tacoma Democratic Luncheon Club that smelting services are in great demand.

(b) As the demand for copper continues to grow because of expanding industrial productivity and sophisticated new technologies (16), the smelting services needed to produce this copper are being curtailed by pollution regulation according to the June 1, 1971 issue of Metals Week. Arizona, where 51% of the smelting capacity in the U.S. is located (17), is especially effected. That state has just had a 3.4% drop in smelting capacity (4).

(c) As smelting services are being curtailed, copper mining appears to be expanding, especially in Arizona. The new Duval mine located in southern Arizona will demand 3.4% of the present smelting capacity of the U.S. or 6.8% of the present mining capacity of Arizona (28).

(d) The miner who supplied 78% of the Smelter's domestic raw materials and the miner who supplied 60% of the Smelter's foreign raw materials said they probably will pay for any increase in costs the Smelter might have (1). They probably would refuse to if a competitive situation existed.

I concluded that ASARCO pays very little of the extra transportation cost.

* Extra costs for the miners would not effect ASARCO much since ASARCO mines in North America only produced approximately 300,000 tons of copper concentrate in 1969, or about 12% of the smelting capacity of ASARCO smelters (17).

To best understand this extra transportation cost resulting from the "unnatural" use of the Smelter in its processing southwest raw materials, the location of the Smelter will be compared to the locations ASARCO says would be advantageous; the southwest or the east coast (1). 218,000 tons of copper concentrate (about 25% copper) will be used for the amount of raw materials transported since that is the amount of "domestic" copper concentrate transported to the Smelter in 1970 (1). 54,500 tons of copper or blister copper will result from that amount of copper concentrate on the approximate average. The mine where this copper concentrate will come from will be the Duval Corp. mine in northwestern Arizona, near Kingman, Arizona. That mine is the closer of the Duval mines to Hayden, Arizona that either supplied none, part or all of the 170,820 tons of copper concentrate sent by Duval to the Tacoma Smelter in 1970 (26). Hayden, Arizona will be the recommended southwest location since ASARCO's largest smelter is located there (17). Baltimore, Maryland will be the recommended east coast location since ASARCO's largest refinery is located there (17). Now, the comparison:

THE PRESENT LOCATION -

Copper concentrate from Kingman, Arizona to Tacoma, Washington 218,000 tons of copper concentrate x \$19.16 per ton (19) =	\$ 4,177,000
Copper from Tacoma, Washington to the east coast 54,500 tons of copper x \$40.36 per ton (19) =	<u>2,199,000</u>
TOTAL TRANSPORTATION COST FOR PRESENT LOCATION =	\$ 6,376,000

The transportation cost for the present location is a maximum since it assumes that all the domestic copper concentrate comes from the southwest (not true, some comes from Montana (30), that all the domestic copper goes back east (probably not true, some probably goes to Asian countries), and that all copper and copper concentrate is sent at the lighter, thus more expensive, bulk rate.

THE SOUTHWEST LOCATION

Copper concentrate from Kingman, Arizona to Hayden, Arizona 218,000 tons of copper concentrate x \$6.21 per ton (19) =	\$ 1,297,000
Copper from Hayden, Arizona to Baltimore, Maryland 54,500 tons of copper x \$35.43 per ton (19) =	<u>1,921,000</u>
TOTAL TRANSPORTATION FOR SOUTHWEST LOCATION =	\$ 3,218,000

THE EAST COAST LOCATION

Copper concentrate to Hayden, Arizona to Baltimore, Maryland <u>218 tons of copper concentrate x probably about \$33 per ton (19) =</u>	<u>\$ 7,194,000</u> ?
TOTAL TRANSPORTATION COST FOR EAST COAST LOCATION =	\$ 7,194,000

It is quite obvious that the east coast location is not the answer. ALSO, THE SOUTHWEST LOCATION IS NOT ADVANTAGEOUS AS IT APPEARS. If ASARCO leaves for the

southwest, it will have to give up its present location advantages which are all based on the fact that ASARCO has the only smelter and refinery that have a west coast seaport. At the Tacoma Smelter's present location, it appears that ASARCO makes the southwest miner pay at least the \$3,218,000 fee since that is the cheapest that miner can send his product to the processing plant and then to the markets (29). Also, as I concluded before, ASARCO pays very little of this maximum extra transportation of \$3,158,000 because of smelter demand. If ASARCO does pay for the extra transportation fee, and if the advantages of the Tacoma Smelter refinery and smelter are not worth at the maximum of \$3,158,000 per year, there are many other factors that would make it uneconomical for ASARCO to leave Tacoma. (See the subsection "How Wise Would It Be for The Smelter To Shut Down and Move?") Extra transportation costs or not, ASARCO still figures the Smelter will make at least \$1 million per year for the next few years (1).

The Smelter insists it is not profitable to convert sulfur pollutants into sulfur by-products because there is no local market for these products (1). I counter by stating that any money they received from these sulfur products will help pay for the cost and operation of the proposed 90% removal program, and that the time, energy and money ASARCO now spends to fight needed pollution control could be used to turn pollution control into a profitable enterprise. This excuse that there is a lack of a market for sulfur by-products is not very original. The British smelters nearly 100 years ago used the same excuse, according to Journal of Metals, March, 1971.

REMEMBER:

ALL KINDS OF PEOPLE BELIEVE ASARCO IS NOT SINCERE IN ITS THREAT TO CLOSE THE TACOMA SMELTER. CHEMICAL ENGINEERING, WHO DID A STUDY ON COMPANIES WHO ARE THREATENING THEIR WORKERS WITH UNEMPLOYMENT BECAUSE OF NEW POLLUTION CONTROL, WROTE IN ITS MAY 3, 1971 ISSUE: "Just threats. Many proposed shutdowns may only be 'red herrings' used to give companies negotiating power on a clean up timetable. Such is thought to be the case of American Smelting & Refining Co. (ASARCO), which currently has placed plants in jeopardy at Amarillo and El Paso, Tex., and at Tacoma, Wash."

*How do
you know*

How Wise Would It Be For The Smelter To Shut Down and Move?

I feel it would be unwise economically for the Smelter to shut down and move for the following reasons:

1. ASARCO is able to easily handle the financial burden. (See the subsection "The Economic Burden")
2. The location of the Smelter is probably not an economical hinderance. It might even be an advantage. (See the subsection "The Wrong Location")
3. Taxes and electricity are cheap for the Smelter according to the Agency.
4. ASARCO fails to realize that environmentalists are not just located in Tacoma, Washington; Phoenix, Arizona; and El Paso, Texas; environmentalists are everywhere, especially thick on the seacoasts. The State of Delaware has just outlawed heavy industry from its shores (15).
5. If ASARCO does not build a new smelter, I wonder if ASARCO would want to close 1 out of its 3 smelters (1) when the great demand for smelting continues to grow. (See subsection "Raw Materials from Domestic Sources")
6. ASARCO claimed before the Democratic Luncheon Club that it would cost \$125 million to build a new plant, more than 12 times the greatest cost estimate for the 90% removal program as estimated by Dr. Johanson (1), and more than twice the greatest cost estimate as estimated by ASARCO(1).
7. Even if the new plant is 4 times as profitable as the Smelter, as claimed by ASARCO, it would be at least 30 years before the new plant is paid off.
8. If the new plant is not built on the western seacoast, ASARCO will probably lose at least part of its business with Asian and South American countries, advantages ASARCO has with the present location of the Tacoma Smelter. (See subsection "The Wrong Location")
9. Most of the other copper smelters and states have the 90% removal figure. The 2 smelters in the eastern half of the U.S. removed 90% of their sulfur emissions by mid-1970 (3). Out of the 14 western smelters, 11 are in states that have the 90% sulfur removal figure: Arizona, Montana, and Nevada (3).

HOW ASARCO FIGHTS POLLUTION CONTROL

ASARCO's methods can be described as brutal and crude. Their attitude and actions can be stated as "Our objective is to make money. Why should we care about the cost to the community." They are aware of the damage they cause, but do very little about it. Instead, they have advised Tacoma residents to remove themselves from the neighborhood, to plant privet hedge rather than the more vulnerable laurel, to shun easily scarred white automobiles, or to remove cars from the driveways at night, when they might be susceptible to smelter fall-out.(7) The company, following an industry-wide practice, has avoided embarrassing confrontations over damage claims by paying off persistent claimants, invariably at bargain prices (7). If the claimant demands anywhere near the real value of the damage, he is frustrated by ASARCO's use of the courts (11). The courts have also been used by ASARCO to attempt to prevent and delay pollution control. Almost any action by the Agency is challenged by ASARCO in the courts (3). One can be assured that if the State Pollution Control Hearing Board upholds the 90% removal program, ASARCO will challenge the decision in court. It is no wonder that ASARCO has spent in legal fees fighting our Agency and others several times the amount it has paid in fines for violations (12).

The people around Tacoma were angry about the ASARCO smelter long before air pollution became fashionable (7). In the 1950s hundreds of residents petitioned the City Council, demanding that immediate steps be taken to reduce the arsenic ash and sulfur dioxide released from the smelter (7). In the 1960s a team from the United States Public Health Service investigated at the invitation of the City Manager, and concluded boldly that "there seems to be little doubt that the pollutants arising from the copper smelter in Ruston merit further evaluation" (7). To this day, complaints of acute distress and of extensive property damage are common place (7). People move from the area on medical advice, grass turns brown, shrubs wither and die (7). The anger of the people has no noticeable impact on ASARCO (7). The smelter's economic dominance in Tacoma defines its political influence (7). Over the years the threat of a shutdown has been the short answer to air-pollution grippers (7). Recently the number and influence of these grippers has increased to the point that effective pollution control has a chance to be imposed on the smelter. That is why your support is desperately needed now. ASARCO has noticed this increase, and is now telling through expensive advertising how 'good' their pollution control is, that the ecologists distort the facts, and that the Agency is polluting the job environment. It has not stated the facts that led them to conclude their advertised statements. I have been taught in my years of schooling that a conclusion is not valid if it is not supported by facts.

In fact, it is ASARCO who is guilty of distorting the facts. This concerns the McKee report, a federally funded systems analysis of the copper industry's pollution problem, completed in mid-1969. The copper industry withheld and distorted some data and disguised the rest in order to show that the technology available to control sulfur pollutants is too expensive (13). Still, the federal government in November, 1969, was able to conclude from the report that it was feasible for the copper industry to achieve the 90% sulfur removal figure (3). But still ASARCO emphasized at the "Tall Stack Hearings" in March, 1970, that sulfur removal was too expensive (3). It is hard to believe that in one year the copper industry and science was able to develop the technology so that 8 of the 16 smelters in the U.S. can claim they will be achieving the 90% removal figure by the end of 1973. Two smelters were removing 90% of the smelter by mid-1970 (2); the six others are located in Arizona (4). These smelters in Arizona, who are in the tougher situation than the Tacoma smelter, have estimated the cost will be as little as \$13.5 million per smelter (4).

With the increase in the number and influence of local air pollution grippers, ASARCO started madly lobbying the high political places in Washington, D.C. (12) It appears now that they are attempting to defeat or amend President Nixon's sulfur pollution control plan (see the "WHAT YOU CAN DO SECTION" for details). (14) That is why your support is needed to pass the President's proposal.

Also, to combat pollution control ASARCO has offered ineffective pollution control devices. This refers to the "Tall Stack" proposal. According to the federal government, tall stacks enable companies to pollute the air at a faster rate and still be within the concentration levels (7). If the Agency had granted ASARCO a variance to build this "Tall Stack", pollution control would have been stopped during the 26 months of construction and ASARCO probably would have realized substantial tax savings under state law by qualifying the "Tall Stack" as an effective pollution control device (7). Luckily, the Agency did not grant the variance (3).

WHAT YOU CAN DO

According to politicians and Dr. Campbell, a local scientist known world-wide for his glacial studies, a well worded letter with facts is worth a thousand votes. I strongly suggest that you:

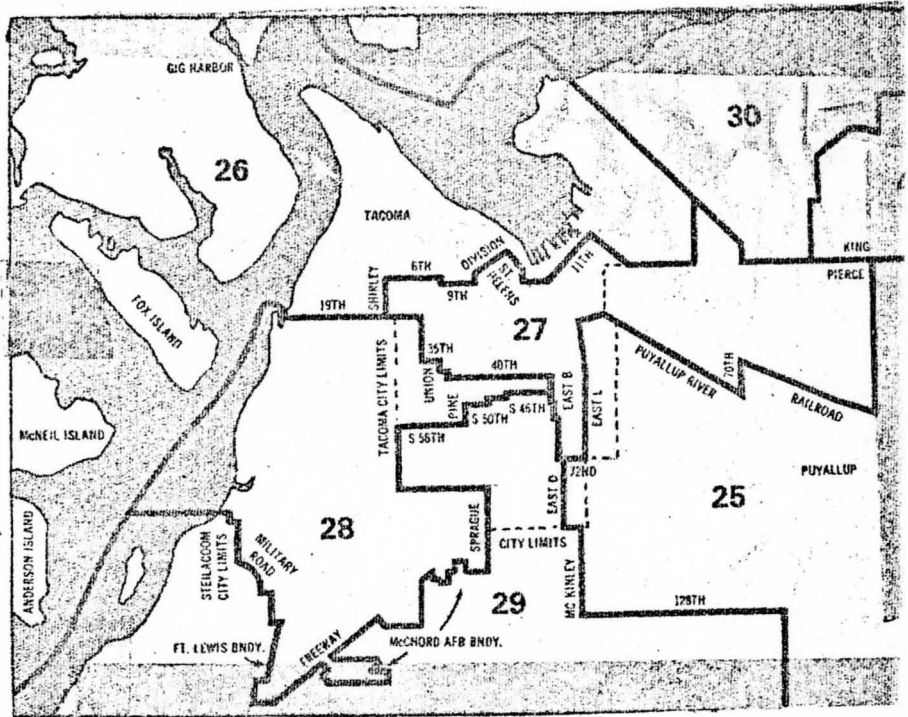
1. Write your State Representatives and Senators. Urge them to contact the State Pollution Control Hearing Board members (Walt Woodward, Matthew Hill, and James Sheehy) and express the need for the 90% removal program. Cite figures, facts, and people. Also, encourage them to support anti-pollution measures and studies such as more money and authority for the State Ecology Department and the Pollution Control Agencies, stricter pollution control laws and higher fines for the violation of the laws, new restrictions for polluters and potential polluters (set restrictions against the use of super oil tankers in the Sound), and the preservation of wildlife and forest areas of the State (Nisqually Delta).

S. = State Senator

R. = State Representative

District Legislator

- 25th: S. Knoblauch, R. Sawyer
R. Broulet
26th: S. Gardner, R. Adams
R. Swayze, Jr.
27th: S. Stortini, R. Wojahn
R. Marzano
28th: S. Newschwander
R. Schera, R. Jueling
29th: S. McCutcheon
R. Gallagher, R. Bottiger



2. Write the local Air Pollution Control Agency. Urge them to penalize the Smelter at each violation to the maximum degree - a gross misdemeanor with a maximum fine of \$1000 and 1 year imprisonment(7). This is not done now, according to Professor Rogers, because, "in the law, it must be understood, nothing is simple, especially if the defendant is a large corporation " (7). One can at least urge the Agency to impose the \$250 civil penalty at each violation.

3. Write Representative Hicks and Senators Magnuson and Jackson. Urge them to support President Nixon's clean air proposal and urge them to support anti-pollution measures and studies.
President Nixon supports sulfur emission control. (14) (Clean Air Emission Charge) He calls for a 1¢ fine for each pound of sulfur emitted in 1971, increasing to 10¢ in 1976. (14) ASARCO estimates that if the proposal passes it will cost the Smelter \$1,700,000 the first year, and \$10 million in 1976. (14) (That is if only the 51% removal figure is met.) If the proposal passes, it would be more economic for the Smelter to reduce emissions to a lower level than pay the fines. Leonard A. Miller, from the Federal Environmental Protection Agency, says that the 90% removal figure is official federal government policy (1). The federal government has recommended this figure since November, 1969 (3).

4. Write Senator Edmund Muskie. He is Chairman of the Senate Subcommittee on Air and Water Pollution. Also, write the Federal Environmental Protection Agency. Both groups are conducting nation-wide studies in smelter type situations; companies who threaten mass layoffs because of pollution reasons (31).

5. Also, phone the local Air Pollution Control Agency (FU 3-5851), and the Smelter (759-3551) when irritated by Smelter smoke.

How To Address The Places Mentioned Above

Name -- State Legislator State Legislature Olympia, Washington 98501	The Honorable (name- Federal man) House or Senate Office Building Washington, D.C. 20510
Local Air Pollution Control Agency 213 Hess Building Tacoma, Washington 98402	Environmental Protection Agency 1626 K Street N.W. Washington, D.C. 20460

IT MUST BE REMEMBERED THAT THE TACOMA SMELTER IS THE ONLY MAJOR INDUSTRY IN WESTERN WASHINGTON WHO HAS NOT MADE A COMMITMENT TO MEET POLLUTION CONTROL STANDARDS (1). THE PULP, ALUMINUM, ASPHALT INDUSTRIES ALL HAVE (1). (THIS STATEMENT WAS MADE BY PROFESSOR ROSSANO, THE U.W. PROFESSOR WHO HAS CONDUCTED MOST OF THE NON-AGENCY STUDIES ON THE SMELTER.)

Written by: Bart Klein

B I B L I O G R A P H Y

1. Tacoma News Tribune articles written by Malcolm MacNey from May 2-16, 1971.
2. Statement of William H. Rogers, Jr., on an application for a variance by ASARCO before the Puget Sound Air Pollution Control Board, December 9, 1970, and statement of the Puget Sound Air Pollution Control Agency in the matter of ASARCO appeal of Resolution 130 granting 3 year variance from the Agency's Regulation 1.
3. Statement of the Puget Sound Air Pollution Control Agency in the matter of ASARCO appeal of the Resolution 130 granting 3 year variance from the Agency's Regulation 1.
4. Agency report by Mr. Walters; The Tacoma News Tribune describes it to some extent with its article by Malcolm MacNey on May 13, 1971.
5. Moody's Industrial- Can be found in Tacoma Public Library.
6. The Instalment Credit Program by The Chase Manhattan Bank, N.A.
7. Rogers, William H., Jr., "Tacoma's Tall Stack". The Nation, May 11, 1970, pp. 553-557.
8. Tacoma News Tribune articles written by Malcolm MacNey from May 2-16, 1971. Verified by Dr. J. G. Billingsley.
9. Emission figures are from source #3. Health effects from the Agency report "Filthy Air Creates a Variety of Health Hazards". Health effects have been checked by Dr. J. G. Billingsley.
11. Personal experience, plus other Tacoman experiences.
12. Statement of William H. Rogers, Jr., on an application for a variance by ASARCO before the Puget Sound Air Pollution Control Board, December 9, 1970.
13. Rogers, William H., Jr., "Industry Advisory Panels: Distorting Research By Closing the Doors", July 14, 1970.
14. Tacoma News Tribune article in paper around May 20, 1971 in back section.
15. "Delaware's Choice", Time, July 12, 1971.
16. "Tacoma Smelter and Refinery" pamphlet written by ASARCO. Can be picked up at the Tacoma Smelter.

17. Statistics from Year Book of the American Bureau of Metal Statistics for 1969. % figures I figured out from the statistics given.
18. Pacific Northwest Economic Base Study for Power Markets - a government study.
19. Interstate Commerce Commission rates and policies. These can be obtained from your nearest railroad rate clerk. Some rates are only one railroad. These rates can be obtained by the local railroad rate clerk. If you are in Arizona, contact Southern Pacific; if you are in Washington or Montana, contact Burlington-Northern.
20. Deducted from source #17. Verified by statement of Smelter official on July 7, 1971.
21. Smelter statement. Verified by statistics reported in the Tacoma News Tribune by Malcolm MacNey on May 6 or 7, 1971.
23. Duval Corp. letter to Bart Klein, July 1, 1971. Verified by statement by Smelter official on July 7, 1971.
24. Statement by Smelter official on July 7, 1971.
25. British Columbia Department of Mines and Petroleum Resources letter to Bart Klein, July 5, 1971.
26. Deducted by statistics from the Tacoma News Tribune article written by Malcolm MacNey on May 6 or 7, 1971, and the Duval Corp. letter to Bart Klein, July 1, 1971.
27. ASARCO Hayden Smelter letter to Bart Klein, June 30, 1971.
28. Capacity statistics from source #17. Duval mine production from Duval Corp. letter to Bart Klein, July 1, 1971.
29. Supported by Duval Corp. letter to Bart Klein, July 1, 1971.
30. Tacoma News Tribune article "Smelter Won't Process Ore Now", July 15, 1971.
31. "Ecologically Unemployed", Chemical Engineering, May 3, 1971, pp. 50-52.
32. Contact Washington State Revenue Department.
33. Contact Paul V. Finn; Chief - Trade Information Branch, Foreign Trade Division, Bureau of the Census, U.S. Department of Commerce, Washington, D.C., 20233.