

FROM E. B. YOUNGBLUT

TO MEMORANDUM

PITTSBURGH OFFICE

Confidential

August 12, 1968

RE: WORKMEN'S COMPENSATION - EDISON WORKS
OCCUPATIONAL DISEASE

This is a resume of the meeting held at the Edison Works of the Alcoa Castings Company on Friday, August 2, 1968, to discuss the workmen's compensation - occupational disease problem at Edison.

The following participated: Dr. M. O. Colwell, Dr. W. N. Dawson, Dr. M. Dunham, Messrs. Howard G. Greim, C. H. Thompson, L. Douglass of Mead, Gleeson, Hansen & Pantages, and E. B. Youngblut.

Objectives of Meeting and Areas Covered in the Discussion:

1. The most important objective was to devise a plan to determine if we now have carcinogens present in the work environment at Edison. If a health hazard is present, the necessary steps must be taken to eliminate the condition.
2. A review of the adjudicated occupational disease cases at Edison (Albert Anger, Benjamin Pickarski, Melvin Cashin, and Edward Hammer) for background information. (See Exhibit 1 for details.)
3. To discuss the three pending workmen's compensation occupational disease cases (Michael Longi, Walter Franklin, and Edward Burton), answer the interrogatories in the Franklin and Burton cases, and plan a course of action for each case. (See Exhibit 2 for details.)
4. A review of four potential workmen's compensation occupational disease cases who are out sick as of 8-2-68 (William Morris, Alexander Morajko, Anthony Truono, and John Novich.) (See Exhibit 3 for details.)
5. A very brief review of twelve other potential workmen's compensation occupational disease cases (ten working, one terminated, and one retired and deceased). (See Exhibit 4 for details.)

Note: The data for all exhibits was gathered from the individual employees' medical, group insurance, workmen's compensation, and personnel records at Edison. The available records do not lend themselves to analysis for change of physical state within plant population group such as the Die Casting employees. Lacking quantitative data, it is most difficult to develop a systematic epidemiological analysis. (Examples: From the available records it is difficult to determine the primary site of the cancer, smoking and personal habits, and current health status.)

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Conclusions and Recommendations:

1. The four settled workmen's compensation occupational disease cases are not helpful for this discussion except to point up the extreme difficulty in successfully defending an occupational disease case in New Jersey. Three of the four cases involved Die Casting Department employees.
2. It is doubtful if we can successfully defend the Longi case. It was recommended to Mr. Greim and Mr. Thompson that they consider authorizing Mr. Douglass to seek a settlement of this case at the pretrial level for about \$6,000.00. The settlement is contingent on the petitioner withdrawing the allegation of damage, both causation and aggravation, of the throat due to the work environment. The findings and award are to be based on aggravation of pre-existing bronchial and pulmonary disability. Messrs. Greim or Thompson will relate their decision to Mr. L. Douglass and inform E. B. Youngblut.
3. The answers to the interrogatories in the Franklin case will be formulated by Mr. L. Douglass, Dr. M. O. Colwell, Dr. L. V. Cralley, and Mr. C. H. Thompson. A successful defense in this case with the data available at this time is doubtful. Messrs. Greim and Thompson will consider authorizing Mr. Douglass to negotiate with the attorney for the petitioner to have the case heard and dismissed. A gratuitous payment of about \$10,000 will be made at the proper time. By this method, we would not be forced to disclose work environment data and preclude a probable death claim by the widow. Messrs. Greim and Thompson will advise Mr. L. Douglass and let us know their decision.
4. Our answers to the interrogatories in the Burton case depend on how we answer the interrogatories in the Franklin case. The consensus was that we have a better than 50-50 chance to successfully defend this case. We plan to prepare a full defense in this case.
5. More medical data should be obtained on the four potential cases who are now out sick. (See Exhibit 3.) Dr. M. Dunham and Mr. C. H. Thompson will undertake the task of gathering the medical data.
6. The following common factors were determined from the records of the five employees with known cancer of the respiratory system shown in Exhibit 5:

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<u>Name</u>	<u>Birthdate</u>	<u>Age</u>	<u>Starting Date with Alcoa</u>	<u>Length of Service with Alcoa</u>	<u>Major Work Area</u>
Michael Longi (pending case)		60	1-2-24	44 years	Finishing Dept.
Walter Franklin (pending case)		45	1-7-46	22 years	Die Casting
William Morris (potential case)		47	8-7-41	27 years	Permanent Mold
Alexander Morajko (potential case)		52	11-7-40	28 years	Die Casting
Anthony Truono (potential case)		60	1936	32 years	Die Casting

Average age = 53 years

Average length of service = 31 years

Work Area = 1 - Finishing Dept. - service, 44 years
3 - Die Casting Dept. - all in excess of
22 years of service
1 - Permanent Mold - service, 32 years

Note: The data on Mr. Novich was omitted due to lack of confirmed medical data.

7. A survey was made at Chicago on the causes of death as shown on the death certificates in the Employee Group Life Insurance file for the period of 1948 through 1967. It did not reveal a death at that location due to primary cancer of the respiratory system. Dr. White was consulted and to the best of his knowledge there were no deaths at Chicago due to primary cancer of the respiratory track since the plant started operation in 1948.

The survey of the deaths for the period of 1948 to the present at Edison has not been completed. Dr. M. O. Colwell will review the data on deaths at Edison when it is completed.

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8. The following are some of the materials that should be considered for exploration and study in our search for potential health hazards in the Die Casting area:

- A. Die and plunger tip lubricants and the end products when they are applied to a hot die;
- B. The end products of fuel oil combustion;
- C. Non-flammable hydraulic fluids;
- D. Alloying metals;
- E. Fluxing materials and practices.

The period to be covered is from 1940 through the present. Dr. L. V. Cralley will coordinate the collection of the data. (Possible sources of information about past practices and materials used are: F. R. Burgener, M. H. Jameson, J. H. Moorman, John T. Bunting, Robert P. Carter, Harry W. Cooley, H. H. Redder, and G. M. Rollason, retired). The study should be made of the original composition of the materials, how they were or are being used in the die casting process, their end products, and possible health hazards.

9. The following are possible sources to do the study for possible carcinogens in the work atmosphere in the Die Casting Unit at Edison:

- A. Research and study by Die Casting Institute. They work with Case Institute and Battelle Memorial Institute; (This information from Frank R. Burgener.)
- B. The research division of a major oil company or the American Petroleum Institute;
- C. Alcoa Foundation to finance an independent study;
- D. The Aluminum Association;
- E. The American Cancer Association;
- F. Alcoa or Alcoa Castings Company.

Dr. M. O. Colwell and Dr. L. V. Cralley will make recommendations on the proper selection of the study group after the data in Item 8 is collected and analyzed. Financing the study was not discussed.

10. It was suggested that consideration be given to accumulating data concerning individual exposures of the die casting machine operators and helpers. This is Dr. Cralley's department.
11. A complete medical survey should be made of an adequate sample of men working in the Die Casting room at Edison and possibly Chicago. These examinations are to be paralleled by identical examinations to an equal

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number of men of like age and service distribution employed elsewhere in the plant and having no significant exposure to die casting lubricating fumes.

12. Concern was expressed regarding our practice of permitting employees to continue working in a work environment in which heat, smoke, fumes, and dust are present, after they receive a workmen's compensation award for aggravation of pre-existing bronchitis and emphysema based on exposure to heat, smoke, fumes, and dust; and permitting employees to continue working in an atmosphere of heat, smoke, fumes, and dust after the findings on our periodic physical examinations show bronchitis, emphysema, asthma or other lung impairments that could be aggravated by the work environment. Taking the individuals off of their regular jobs and putting them on work that is compatible with their physical conditions has many labor relations, medical, and workmen's compensation aspects and problems. Leaving them on their jobs raises moral and legal questions. This problem needs further exploration and is applicable to all Company operations. Mr. Greim said that he would review the problem at Edison, especially the settled case involving Mr. Hammer. Dr. M. O. Colwell will consider the over-all medical aspects.
13. Mr. C. H. Thompson and Dr. M. Dunham will complete as much as possible of the missing data on Exhibits 2, 3, 4, and 5. The most pertinent missing data is smoking history and current health status.
14. The work at Pittsburgh will be coordinated through Dr. L. V. Cralley. At Edison, Mr. C. H. Thompson will handle the same assignment.
15. On October 1, 1968, the situation will be reviewed and a progress report written.

Your corrections, additions, ideas, comments and suggestions will be appreciated.

E. B. YOUNGBLUT

EBY:ss

Attachments

cc: Dr. M. O. Colwell - Pittsburgh Office
Mr. H. G. Greim - Edison Works
Dr. W. N. Dawson - Pittsburgh Office
Dr. L. V. Cralley - Pittsburgh Office
Mr. C. H. Thompson - Edison Works
Dr. M. Dunham - Edison Works
Mr. W. O. Howarth - Pittsburgh Office

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AlcoaBritton0096140

FROM E. B. YOUNGBLUT
PITTSBURGH OFFICE

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OF 4553-REV. 600M 11-67

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E. Franklin

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<i>Larynx</i>	Walter Franklin (pending case)		45	1-7-46	22 years	Die Casting
<i>Lung</i>	William Morris (potential case)		47	8-7-41	27 years	Permanent Mold <i>subsequent</i>
<i>Larynx</i>	Alexander Morajko (potential case)		52	11-7-40	28 years	Die Casting
<i>Bronchial</i>	Anthony Truono (potential case)		60	1936	32 years	Die Casting

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D R A F T

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DIE CASTING PRACTICES--GARWOOD

During the 1930's only gooseneck die casting machines were used at Garwood. These machines ^{had} have a high degree of lubricant exposure associated with their operation since the machines were generally placed close together and the manual swabbing of the gooseneck which reached a temperature probably as high as 1200°F creating a ~~xx~~ dense smoke which frequently exposed the operator significantly.

Until 1943, the die casting area was x ventilated only by gravity ventilators. Consequently, tremendous internal pollution exposures existed. This was greatly improved in 1943 by the installation of a Robertson ventilator.

During the 1930's and 1940's die lubricant consisted primarily of majestic oil and kerosene. The majestic oil was a straight cut and contained no components derived from either steam or ~~XXXXXXXXXXXX~~ catalytic cracking. However, the tie temperature, probably in the vicinity of 350-500°F, did no doubt produce some degree of cracking. Beyond any doubt, the temperature of the gooseneck, that is 1200°F, produced quite significant thermal cracking. This could be a very significant factor.

During 1940, a "cold chamber" or "high pressure" magnesium die casting machine was studied which although developed for magnesium had great potential for aluminum die casting.

In 1942, due to a war requirements, production was increased to three full shifts. This was a peak year for aluminum die casting production. Four additional magnesium casting machines were installed during this period. The magnesium die castings were associated with aircraft engines.

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- In 1943 there was a steady increase in magnesium die casting production. This dwindled from this point until practically no production in 1945. During this period six gooseneck type machines were replaced by cold chamber die casting machines. Also, as stated earlier, the Robertson ventilator was installed to alleviate^{an} obviously bad in-plant exposure of the die casters.

From 1945 there was a gradual replacement of gooseneck with cold chamber machines. Although there was still the same potential exposure of the employee by virtue of the necessity of swabbing the plunger tip, nevertheless the temperature of the plunger tip was seldom more than 300 ~~°F~~ but occasionally might have climbed as high as 500-600°F. Thus the exposure potential with the gooseneck was significantly greater by virtue of closer machine location and the much higher temperature of the gooseneck when it was swabbed. It should also be noted that there was an increase in the rate of production with the cold chamber machines. With this rate of increase, the die surface which previously averaged perhaps 350-500°F was increased from 450° to 650°F.

In the late 1940's lead was removed from the lubricant formulation by replacement with graphite. Also, since the early 1950's, there has been a gradual increase in the use of water emulsion lubricants. Presently water emulsion lubricants constitute about 65% usage. The remainder is still the majestic oil/kerosene type. Likewise, automatic lubrication has been introduced. Although less neat lubrication^{is} is used, there is a greater dispersion in the area of the operators.

In 1946, eight cold chamber die casting machines were installed. This made a balance of 40 cold chambers vs. 30 goosenecks. Very few gooseneck machines were moved to Edison.

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Although it is difficult to assign a time element, the ^{smoke} gas produced in the early days when the dies were open was greater than today. In the old days the dies were much more likely to be stained from the lubricant. The ^{degree of} ~~decrease in~~ staining decreased significantly somewhere in the early 1950's.

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