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Outline of Medical Services in Various Areas, Medical Service of Carlsbad and Arbon Dispensary

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CLASSIFICATION CHANGED TO: Unclassified
By authority of P. S. Napolitan

By J. Martin Date 2/23/82

Carbide and Carbon Chemicals Corporation Operating
Contractor for the U.S. Atomic Energy Commission.

This document has been approved for release
to the public by J. Kelly
J. S. Quinn/sst 7/16/96
Technical Information Officer Date
Oak Ridge K-25 Site

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THIS DOCUMENT CONSISTS OF 61 *Pages* PAGES (3)
NO 13 OF 44 COPIES SERIES *A*

OUTLINE OF MEDICAL SERVICE IN VARIOUS AREAS

277389

Medical Service of Carbide and Carbon Dispensary

1949
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M-1206

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P-76626

1. Purpose:

The dispensary was instituted and is maintained for the purpose of providing ordinary industrial medical service for the employees of Carbide and Carbon Chemicals Corporation; Ford, Bacon and Davis Co., Kellogg Corporation; and Foreever Corporation.

This service includes physical and laboratory examinations of employees including preemployment, routine, special and termination examinations performed for the purpose of proper placement of new hires, to assure the most efficient use of available manpower, to prevent employment of persons having disabilities which might be aggravated by their duties, or whose disability might endanger others, to protect the health of employees who are working with toxic materials by procedures designed for the detection of early signs of toxicity and if such signs are noted, recommending reduction of exposure or transfer to other work, to check periodically and after illness, the physical status of all employees in order that physical ailments may be detected early and corrected with the least possible loss of time from work, and finally, to estimate the employee's physical condition on leaving the project to protect the interests of both the employee and the Government by an accurate record of any physical disability which has developed during the course of employment.

It is also the purpose of this dispensary to provide adequate treatment for industrial injuries and occupational diseases occurring in employees of these companies.

Further, it is also the policy of this dispensary to provide immediate emergency treatment for any person injured in the K-25 Area who is brought to the dispensary for care.

Employees of the above-mentioned companies may be treated once or twice in the dispensary for minor non-occupational injuries or illnesses. Non-occupational injuries or illnesses of a major nature or requiring more than one or two visits are referred to the Oak Ridge Hospital or to its K-25 Dispensary Branch.

Attached (Section XIV) is an outline which sets forth an ideal industrial medical program, toward which the present medical service aims.

The Medical Department also supervises the programs of monitoring the radiation and chemical hazards existing in plant operations, and collaborates with the Safety and Operations Departments in developing safe operating procedures and protective equipment. Operations in this Area are accompanied by the hazards usually encountered in a large industrial plant. In addition to the hazards of a large construction program, there are those connected with electrical and steam work. Also, hazards similar to those of ordinary chemical plants are encountered; for example, exposures to acids, alkalis, solvents, etc.

Specific details of special hazards are discussed in the attached sections outlining the hazards of K-25 and S-80 operations.

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IX Hazards of K-25 Operations:

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The operations in the K-25 Area are conducted for the purpose of concentrating the U^{235} contained in uranium. The entire process is based upon the relatively greater ease with which U^{235} penetrates a special nickel barrier, as compared to U^{238} .

The basic process material is uranium hexafluoride, which was chosen because it has certain physical characteristics which make it particularly suitable for this method of separation.

All other operations of the area are merely auxiliary functions to the basic process.

Uranium hexafluoride is a gas at operating temperature ($104^{\circ}F$) but can be solidified easily by cooling to $-112^{\circ}F$. It is a corrosive substance and reacts with metal, water, etc. In consequence, a rather involved conditioning process is required before equipment is ready to receive process material.

Under the present plan of operation, most of the equipment for the process building is prepared for use by conditioning in the Ford, Bacon and Davis Building

In this conditioning process, all metal parts which will have contact with uranium hexafluoride receive progressive baths of tri-chloroethylene, hot water, dilute sodium hydroxide, water, 5% hydrochloric acid and cold water. In this cleaning process there has been a definite dermatitis hazard from tri-chloroethylene. Formerly there was also a respiratory hazard here, but ventilation and control of the level of fumes in the bath have both tended to decrease this. Thorough draining of equipment and the use of gloves have materially reduced the dermatitis hazard.

In this department, also, pipe joints are sealed for testing with Glyptel, a resinous preparation. After testing, the Glyptel is removed with a kerosene-like hydrocarbon and this solution has produced skin irritation of the hands of some of the workmen. Better supervision of this process is eliminating the hazard

The final conditioning of converters, pumps, etc., by treating them with fluorine is also carried out in this building.

Isolated instances of short exposures to fluorine have occurred. No effects other than minor burns or transient irritation have been observed. Frequent checks are made in this Area for presence of fluorine and hydrofluoric acid fumes in the air.

All fluorine used in the K-25 Area is prepared in the former Hoesler Company plant. Under present operating conditions, there are no outstanding hazards in the process.

In the process area, there are three separate types of operations, each presenting its own peculiar hazards. There are: a. feed system; b. separation operations; c. disposal and storage.

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Hazards of Y-25 Operations

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Feed System: In the original plant design the uranium hexafluoride was to have been purified and introduced into the cascade from the feed purification tower. However, the UF_6 , as received, is of sufficient purity that it can be introduced directly into the cascade, and consequently the feed purification tower is not being used. If in the future this system is put in operation, uranium hexafluoride will be poured from the drums in which it is received, into storage tanks. From these the chemical would be volatilized in an evaporator, leaving behind non-volatile impurities, and entering the cascade. It has been considered that this process might cause the disintegration products of uranium, UX_1 and UX_2 to collect in the evaporator with the non-volatile impurities. Consequently, both the beta and gamma radiation at this point could be greatly increased over that encountered in the material as it is received. For this reason, the evaporator was equipped with lead shielding, and radiation measurements were to be made here weekly. As much as 100,000 lbs. of uranium hexafluoride could be contained in the storage tanks. Further, this material would be held at slightly more than atmospheric pressure. In the event of sabotage, or serious leakage, a great deal of UF_6 might be liberated. As a protection against this possibility, adequate exits were provided for this building, and measures taken to provide protection for the personnel of the entire process area if such an event occurred.

Separation Operations: Separation operations are conducted in a large U-shaped building which houses a large number of converter units. The units vary in size, large units being used on the starting material, and progressively smaller ones as the U_3O_8 becomes more concentrated and the volume of UF_6 correspondingly reduced. In all of the units, the same type of process is carried out.

UF_6 is introduced into the system at present directly from the shipping containers, but could be introduced from the feed purification tower. Within the system it is handled at less than atmospheric pressure, and when it is piped about, it is surrounded by a jacket of nitrogen or dry air at a somewhat higher pressure which is still less than atmospheric pressure. Consequently, if leaks should develop the direction of flow would be from without in, rather than the reverse.

When individual converters have to be replaced or repaired, the UF_6 contained is pumped out and the unit purged with dry nitrogen. It is possible that in spite of these precautions, a small amount of UF_6 might remain and constitute a minor hazard.

Two other possible hazards exist in connection with the converters. A fluorinated hydrocarbon is used as a coolant and acts as a respiratory irritant when it is breathed. It does not seem to have an irritating effect on the skin. Another fluorinated hydrocarbon is used as a lubricant for the pumps, and, although its toxicity has not been investigated, it is considered to have mild irritating effects on both the skin and respiratory tracts.

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Hazards of K-25 Operations

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In connection with the converters of each building section, there are two rooms which may be used either for storage of the material while a cell is being repaired, or for removal of final product.

These rooms the "purge and product", and "cold trap" rooms, are places where very definite hazards exist. First, because of the nature of the process, these rooms are filled with many pipes which interfere with easy passage in and out of the rooms. Secondly, in the removal or storage of the uranium hexafluoride, a CO₂ cooling process is used which, if it fails or leaks, might release a large quantity of CO₂ into a rather small area. This could produce an oxygen-poor atmosphere. In addition, any break or leak in uranium hexafluoride lines in these rooms could produce a dense cloud of fumes in the same small area. For this reason, regular operators in these rooms are required to carry Army assault masks on their persons at all times. Persons cleaning these rooms after a break are to wear an oxygen rebreathing unit even after the rooms are ventilated. Such breaks are expected to be rare occurrences.

Disposal and Storage In the tails accumulator and surge building, uranium hexafluoride in depleted form will be received from the end of the cascade. Some of this will be reintroduced into the cascade to maintain pressure and flow; some will be stored in the surge tanks in this building and some will be placed in cylinders for disposal elsewhere. Depleted uranium hexafluoride reaches this building at less than atmospheric pressure in pipes which are surrounded by jacket pipes containing dry nitrogen at higher pressure. The depleted uranium hexafluoride is condensed from gas to liquid through two pump systems; the first is a one-stage pump, and the second a two-stage pump. From the pumps the depleted uranium hexafluoride is handled under relatively high pressure and is placed either in the surge tanks for temporary storage, sent to the tails accumulator for a very short storage before shipping, or, sent directly through pipes to the stripping room for disposal. In the last two operations, it also passes through a condenser. All of this process from the pumps on is considered high-pressure work, and this area has the possible hazard of uranium hexafluoride escaping under relatively high pressure. Safety equipment, including assault masks, clothing and neoprene gloves is provided for all regular workers in this area and the safety regulations are defined.

In "cold trap", "purge and product" and "tails accumulator" buildings, carbon traps are provided for the absorption and retention of uranium hexafluoride which passes through the condensing system. It is planned, when these traps have to be cleaned, emptied, or removed, to have workers doing this work use assault masks, protective clothing, high shoes, and neoprene gloves. It is not expected that the carbon traps will have to be changed frequently.

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~~SECRET~~III Hazards at ~~2400~~

Uranium hexafluoride is the process material used in S-80 operations. The process involves the use of high temperatures for the separation of the isotopes of uranium and UF₆ has physical properties which make it particularly suitable for this method of separation.

One of the principal potential hazards in this process is the use of steam at pressures of 800-1200 pounds per square inch.

The uranium hexafluoride is received in cylinders of about 450 lbs. capacity. The material is transferred into storage tanks in the transfer room by placing the cylinders of UF₆ in a steam jacket, heating up the material and allowing the pressure produced to move the material. (This method of transferring material from one container to another by differences in temperature and pressure is used throughout the plant, and appropriate controls and safeguards are used to prevent excessive pressures from developing.) The storage tanks are placed behind armor plate in the transfer room.

- a. The material is introduced into the separation system by means of small copper pipes carried in a larger pipe through which steam at low pressure is circulated. The steam is used to keep the UF₆ at sufficient temperature to maintain it in a gaseous state.
- b. The separation system consists of a series of vertical columns supported by masts. Each column consists of a central pipe which contains steam at 1,200 lbs. per square inch. This is surrounded by a concentric copper tube containing UF₆ which in turn is surrounded by a large pipe which is filled with cooling water. Because of the high pressure of the steam, there is constantly present the hazard of bursts. There is the additional hazard of leakage of UF₆ particularly when material is withdrawn as outlined below.

Until recently, uranium hexafluoride was removed from the bottom and top of the rack in depleted and final product forms respectively, for laboratory analysis. This had to be done by hand. In the process of uranium hexafluoride line was frozen near the point of opening with dry ice. The line was opened and the laboratory container attached. Then the line was heated with a kerosene burner flame to thaw the plug and allow the uranium hexafluoride to escape into the laboratory container. As soon as the sample was taken, the same procedure was carried out to freeze the line, remove the sample tube, and thaw the line. In this procedure there was always the possibility that the line might not be properly frozen and a jet of material came out, at about eye level, when the cap was removed. The hazard here has been materially reduced by the addition of an automatic sampler, but this still must be attached and detached as described above. It has been requested and recommended that protective clothing and eye shields be worn during this operation.

No unusual hazard of an electrical nature exists in the rack room.

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Hazards at 2-50

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The transfer rooms are considered to present the greatest hazard from UF_6 . The cylinders and storage tanks are weighed before, during, and after, all transfer operations, but there are apparently errors existing either in the scales or in operations, because frequently a container believed to be empty by scale reading will, when opened to the outside, allow a fairly large quantity of uranium hexafluoride to escape into the transfer room. Since these rooms are very small and ventilated only at the top, a dense cloud forms readily and is not easily dissipated. Consequently, it has been recommended that assault masks be carried on the person of all employees working in the transfer rooms, ready for instant use. Protective clothing is also recommended here.

The only other point of major hazard exists outside the operations building in the "conditioning" shop. Two principal types of work go on here. First, most of the tubing through which the uranium hexafluoride passes is conditioned here before use. The tubing is degreased with trichloroethylene, dried, and then treated with elemental fluorine at 20 lbs. pressure. Since this has to be done by hand, there have been a few occasions on which, through carelessness, the fluorine has come in contact with the operator's hands or arms, producing burns. Second, enriched material withdrawn from the top of the racks is transferred to small metal containers for storage or shipment. The method of transfer is identical with the procedure for obtaining a laboratory sample given previously. Here again, improper greasing of the connections may cause the escape of material. This building is at present, crowded and improperly ventilated, but recommendations for the correction of these conditions are now being carried out. It has been recommended that protective clothing be worn and assault masks carried on the person of all operators working in this area.

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IV Physical Setup of Medical Services

A. Dispensary (Attached is floor plan)

The area is serviced by one dispensary, the C & GCC Dispensary.

B. Field Aid Stations

Three field aid stations are directly under the management of the Dispensary staff.

C. First Aid Stations

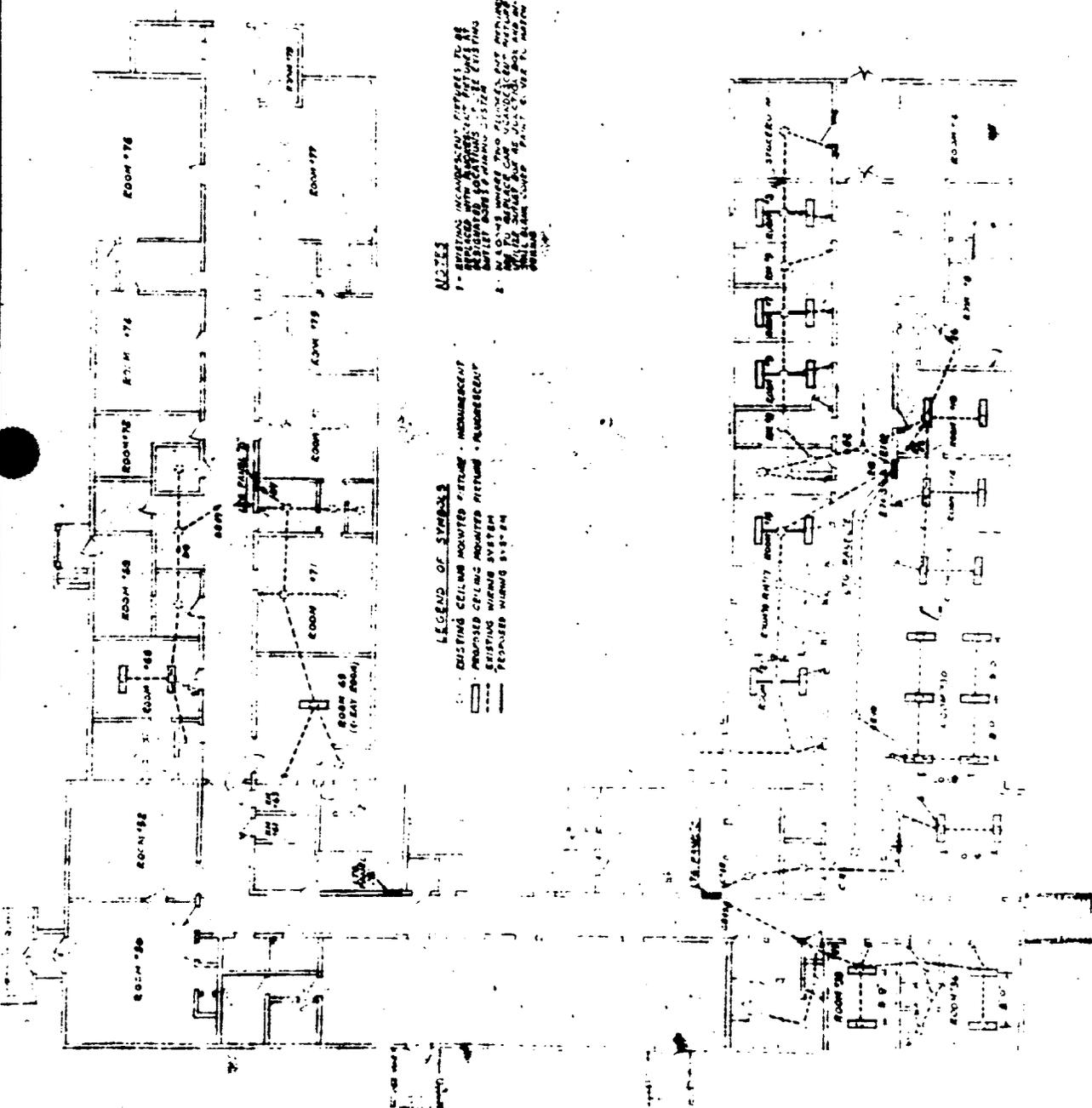
Additional first aid stations are contemplated for the C & GCC process areas.

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NOTES

1 - EXISTING INCANDESCENT FIXTURES TO BE REPLACED BY FLUORESCENT. SEE LISTING SHEET FOR WIRING SYSTEM.

2 - EXISTING WIRING SYSTEM TO BE REMOVED. SEE LISTING SHEET FOR WIRING SYSTEM.

3 - EXISTING WIRING SYSTEM TO BE REMOVED. SEE LISTING SHEET FOR WIRING SYSTEM.

4 - EXISTING WIRING SYSTEM TO BE REMOVED. SEE LISTING SHEET FOR WIRING SYSTEM.

5 - EXISTING WIRING SYSTEM TO BE REMOVED. SEE LISTING SHEET FOR WIRING SYSTEM.

LEGEND OF SYMBOLS

— EXISTING CEILING MOUNTED PICTURE MONUMENT

— EXISTING WIRING SYSTEM

— PROPOSED WIRING SYSTEM

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Date	July '44	Aug '44	Sept '44	Oct '44	Nov '44	Dec '44	Jan '45	Feb '45	Mar '45	Apr '45	May '45	June '45	July '45	Aug '45
Total Patient Visits per month	1000	1700	2650	3650	4550	6450	6300	9650	11050	10600	15600	15500	15700	20400
Industrial Services per month	50	50	100	100	150	200	200	400	400	400	700	1400	1900	2000
Pre-employment Examinations per month	600	900	1050	1300	1550	2050	2400	3000	2950	2800	2800	1600	2000	2200
Occupational Accidents & Illnesses per month	50	100	200	300	500	800	500	900	1300	1650	2000	2450	2700	2500
Fercleve First Aid per month	0	0	0	250	500	1200	1000	1700	2050	2000	2700	2500	2300	2800
Non-industrial Accidents & Illnesses per month	300	500	950	1400	1550	1900	1850	2950	3500	3000	4000	3950	4300	3800
Conditioning Building First Aid per month	0	0	0	0	0	0	0	0	0	0	2500	2500	1200	2500
Process Building First Aid per month	0	0	0	0	0	0	0	0	0	0	0	0	200	3000
Termination Examinations per month	0	150	250	300	300	300	350	700	850	750	900	1100	1100	1600
Doctors	3	4	5	6	8	8	8	11	12	12	12	12	14	15
Nurses	4	7	9	12	14	17	20	29	34	41	44	44	44	37
Technicians	5	4	8	10	13	15	20	24	22	21	22	18	18	15
Clerical	2	6	8	9	11	14	17	20	21	21	21	23	28	30
Lab. Assistants and Asst. Tech.	-	-	-	-	-	-	-	-	-	-	-	-	-	16
Charges per month	\$12941	7086	10253	8638	12,603	13,525	16,817	19,338	20,293	21,201	26,860	29,185	27,105	27,682
Charge per Patient Visit	12.95	4.17	4.02	2.42	2.77	2.10	2.67	2.00	1.84	2.00	1.72	1.88	1.73	1.36
Patient Visits per month per Doctor	333	425	510	608	569	806	787	877	921	883	1300	1292	1121	1569

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V Personnel:

A. Doctors (11)

- | | | |
|-----------------------|----------------|--------------------|
| 1. Full-time: Doctors | A. G. Kanner | (Supervisor) |
| | W. J. Costello | (Asst. Supervisor) |
| | P. E. Johnson | (Shift Physician) |
| | E. Murphy | (Shift Physician) |
| | R. H. Reddick | (Shift Physician) |
| | P. D. Seefield | (Shift Physician) |
| | W. H. Pickett | (Optometrist) |
| | H. Pinson | (Shift Physician) |
| | L. F. Gibbs | (Pre-employment) |
| | G. C. Shaw | (Pre-employment) |
| | H. D. Rollins | (Pre-employment) |
| | R. C. Geringer | (Shift Physician) |
| | W. Yeider | (Shift Physician) |
| | Agnes Flack | (Shift Physician) |

B. Nurses (28) - on shift basis.
Nurse assistants (4)

Nurses total 48 7/15/48 Nurse aids total 8

C. Technicians

1. Laboratory (11). Several on shift basis.

2. X-ray (3). One on shift work.

D. Miscellaneous

- 1. Clerks and stenographers (25)
- 2. Orderlies (4)
- 3. Drivers, ambulances, etc. (4)
- 4. Janitors and maids (8)

1 August 1948: Dr. Reddick was terminated 1 July 1948.
Dr. Murphy was terminated 28 July 1948.
Dr. Geringer is on sick leave.

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VI Equipments

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A. Special Surgical

1. Operating room with complete equipment for minor surgery.

2. Treatment rooms (8).

Two at the Dispensary proper completely equipped for first aid and dressings.

Two at Forclove first aid.

One at Ford, Bacon, and Davis.

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3. Treatment booths (11).

Five at main Dispensary.

Four at Forclove equipped for complete first aid and dressings.

Two at Ford, Bacon and Davis for complete first aid and dressings.

4. Eye treatment booths (3).

Two at the Dispensary.

One at Forclove first aid.

B. X-ray

1. One all-purpose unit exclusive of x-ray therapy. Rotating anode tube. The x-ray department is located in the north end of the Carbide and Carbon Chemicals Corporation Dispensary. Equipment consists of a Westinghouse 200 H.A. x-ray machine using a rotating anode tube for routine work. The adjustable table and fluoroscope attachment are also of Westinghouse manufacture. There is a large upright 16 x 17 film shifter. Most of the routine pre-employment chest x-rays are 4" x 16" and for this work there is installed a General Electric Photorecorder unit with Iyoclin grid. The dark room is equipped with 10 gallon developer and fixer tanks. The film dryer compartment, connected to the dark room, is equipped with a fan and heater.

2. Personnel consists of one registered x-ray technician who supervises the department. He has three assistant technicians who work on a shift schedule to maintain 24-hour service. The dark room requires the services of one girl. There is another girl employed full-time filing film.

3. The majority of the work done in the x-ray department has to do with pre-employment. A 6" x 16" chest x-ray is taken on every person hired by the companies served by the Dispensary. Also a considerable number of x-rays are taken for diagnostic purposes on traumatic cases referred from the treatment rooms and the first-aid stations. The equipment is capable of any ordinary roentgenologic procedure, but it has been the policy of the Dispensary to refer patients to the Oak Ridge Hospital who require

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2.

Equipments

specialized roentgenologic diagnosis. X-rays for each day are read at one time the day after they are taken. The report is dictated to a stenographer who transcribes it onto the applicant's record. If evidence of active pulmonary tuberculosis is found, it is usually possible to reject the applicant at once. At this time also, any evidence of chronic pulmonary disease is noted and for each case of this type, a future follow-up scheme is written into the record. All cases of tuberculosis, active or arrested, are reported immediately to the Board of Health, Oak Ridge, Tennessee.

4. No x-ray reports are kept by the x-ray department. Each reading becomes a part of the employee's medical record which is kept in a numerical file in the office of the dispensary. The x-ray plates are kept in chronological files in the x-ray department.

C. Oxygen Equipment

Carbide and Carbon Chemicals Corporation

Dispensary, K-25:

- 3 Positive Pressure Inhalators, complete.
- 1 H & H type inhalator, complete, in ambulance.
- 1 E & J type resuscitator, inhalator, aspirator, complete.
- 3 Extra style G cylinders of oxygen.
- 3 Extra small cylinders of oxygen.

K-25 Area in General:

- | | |
|-----------------------------------|-----------------|
| 3 H & H type inhalator, complete. | Laboratory #3 |
| 2 H & H type inhalator, complete. | Fire Hall |
| 1 H & H type inhalator, complete. | Emergency Truck |
| 2 H & H type inhalator, complete. | Building 210-2 |
| 1 H & H type inhalator, complete. | Building 220-2 |
| 1 H & H type inhalator, complete. | Building 230-2 |

C.C.W.-F.F.C. Y-12 Area

Dispensary Building 2702-2:

- 20 Positive Pressure Inhalators, complete
- 3 Extra full face masks.
- 3 Extra small type masks.
- 12 Extra style G cylinders of oxygen.

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~~SECRET~~Equipments

<u>Y-12 in General</u>	<u>Building</u>	<u>Department</u>
1 H & H type inhalator, complete.	9801-1	08
1 H & H type inhalator, complete.	9801-2	017
1 H & H type inhalator, complete.	9801-3	028
1 H & H type inhalator, complete.	9801-4	038
1 H & H type inhalator, complete.	9801-5	037
1 H & H type inhalator, complete.	9804-1	030
1 H & H type inhalator, complete.	9804-2	031
1 H & H type inhalator, complete.	9804-3	032
1 H & H type inhalator, complete.	9751	030
1 H & H type inhalator, complete.	9821	032
1 H & H type inhalator, complete.	9704-2	017
2 H & H type inhalator, complete.	9710-1	021
1 H & H type inhalator, complete.	9710-2	021
1 H & H type inhalator, complete.	9802	120
3 Extra H & H type inhalators	9710-2	
7 Extra style G cylinders of oxygen	9710-2	
7 Extra small " " "	9710-2	
4 Extra style G " " "	9808	
22 Extra small " " "	9808	
1 Extra style G " " "	9802-3	

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Equipment:

Stone and Webster Engineering Corporation

- 1 E & J Resuscitator, inhalator, aspirator, complete, in ambulance.
- 1 E & J Resuscitator, inhalator, aspirator, complete, in Field First Aid.

Station No. 1

- 2 Extra small cylinders of oxygen.

Hume-Anderson

- 1 E & J Resuscitator, inhalator, aspirator, complete - Oak Ridge Hospital.
- 2 E & J Tri-pod type resuscitator, inhalator, aspirator, complete - Oak Ridge Hospital.
- 30 Extra style G cylinders of oxygen.
- 20 Extra style G cylinders of oxygen and carbon dioxide.

Fire Department

- 1 H & H type inhalator complete, in Ass't. Chief's car at Oak Ridge.
- 1 H & H type inhalator complete, in Fire Headquarters.
- 1 H & H type inhalator complete, in Ass't. Chief's car at K-25 Area.
- 2 Extra small cylinders of oxygen in fire house stock room.

Recreation and Welfare

- 1 H & H type inhalator, complete, in R. & W. Warehouse.

J. A. Jones Dispensary

- 2 E & J type resuscitator, inhalator, aspirator, complete.
- 2 Extra cylinders of oxygen (1 lb. 1 ea.)
- 9 Extra cylinders of oxygen and 5% CO₂ (1 lb. 1 ea.)
- 10 Extra small cylinders of oxygen and 5% CO₂ (1 lb. 10 ea.)

Clinton Laboratories

- 3 H & H type inhalator, complete.
- 1 Positive pressure inhalator, complete.
- 1 E & H resuscitator, inhalator, aspirator, complete.
- 1 M.S.A. Motor hand-driven combination, fresh-air
- 4 Extra style G cylinders of oxygen.
- 6 Extra small cylinders of oxygen.

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Equipment

5.

The foregoing list of equipment gives the following totals on oxygen-breathing equipment available on the C.E.W. Area:

- 29 Positive pressure inhalators, complete.
- 37 H & H type portable inhalators, complete.
- 17 H & J type portable resuscitator, inhalator, aspirator, complete.
- 61 Extra style 0 cylinders of oxygen.
- 20 Extra style 0 cylinders of oxygen with 5% CO₂.
- 64 Extra small cylinders of oxygen.
- 19 Extra small cylinders of oxygen with 5% CO₂.

This equipment would allow 83 cases to be treated at one time in case of disaster occurring anywhere in the C.E.W. Area. The small cylinders of oxygen vary in size so that those for the H & H equipment will not fit the H & J and vice versa.

D. Miscellaneous

- 1. Diathermy - one unit.
- 2. Ultra violet - two units.
- 3. Ambulances - two.
- 4. Electrocardiograph.

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VII Pre-Employment Routines

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A. On Area

Persons applying for employment on the Area are interviewed either at the employment office at Elm Gate or at the Wheat School employment office.

At these points a route sheet is initiated for prospective employees (Exhibit I). The subsequent employment procedure is carried on through the Wheat School office only.

During the first interview, the person's name and social security number are taken, and the type of position for which he or she is to be employed is noted. Then an interview is held either with the supervisor of the department or his representative.

Following this interview the employee is taken directly to the housing office where accommodations are assigned in dormitory, trailer camp, huts, or other available housing.

From this office the individual is taken to the payroll office where time cards and other data are completed.

Then the employee is taken to the security office where references are checked, fingerprints are taken, _____, if any, recorded. Also, the employee's birth record is checked in the security office.

All the above-mentioned forms are checked before the patient is sent to the medical department. This check includes permanent address, marital status and name of spouse.

Either prior to medical examination or immediately following it, the employee visits the insurance office where hospitalization and other insurances are explained to him and opportunity afforded the employee to make whatever insurance arrangements he wishes.

Upon arrival at the medical department, the employee's medical record is initiated in the office, and a permanent medical number is assigned.

The patient's history, temperature, pulse, respiration, blood pressure, vision, and hearing are taken and recorded by the nurse.

A general physical examination by the doctor is the next procedure.

After the doctor's examination, the employee is sent to the laboratory for serology, hemoglobin, sedimentation rate, hematuria, and urinalysis. When the laboratory examination is completed, a chest x-ray is taken. (Exhibits II, III, IV, V, VI, VII, VIII, and IX.)

Following the x-ray the patient is returned to the employment office.

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Pre-employment Routine:

B. **OCT Areas:**

Name

C. **Special Examinations**

Stool cultures are made on food-handlers giving a history of typhoid fever. Stool specimens are sent to Oak Ridge Hospital for culture. No special examinations are done before employing people for hazardous areas, but certain physical classifications (noted by the doctor) are rejected for employment in hazardous operations areas.

D. **Classification of Employees:**

(See attached sheets)

E. **Methods for Recalling Employees for Recheck on Abnormal Findings:**

Pre-employment individuals are being recalled within 24 hours if abnormal laboratory findings are discovered. If recheck of the findings reveal it still present, and the abnormality is such as to preclude hiring, the individual is rejected at once. In addition, some rejections are made by the doctor at the time of the physical examination. Persons are rejected if there is sufficient abnormality of the vision, hearing, heart, lungs, kidneys or blood-forming organs to disqualify them for the position for which they are being hired.

At the present time, a complete recheck of all the charts of all persons presently employed and those who have been terminated is being made to insure appropriate follow-up of individuals who require medical treatment.

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CLASSIFICATION OF WORKMEN
ACCORDING TO CLINICAL FINDINGS

UNCLASSIFIED

A. G. Kammer, M.D.
East Chicago, Indiana
January 2, 1939

UNCLASSIFIED

CLASS X

No Physical Defects.

1. No more than 25% over average weight for height.
2. Skin free of lesions requiring treatment and/or which might become aggravated by work.
3. Normal vision (20/30 Snellen or better in each eye.).
4. Ninety to 100 per cent of normal hearing in each ear.
5. No obvious infection in the mouth or throat.
6. Nose of normal structure and free of obvious disease.
7. Lungs free of disease as determined by physical and x-ray examinations.
8. Heart free of signs or symptoms of organic disease, and of normal size as determined by the chest x-ray film.
9. Circulation:
 - a) normal blood pressure;
 - b) no obvious arteriosclerosis;
 - c) no varicosities (except small varicocele).
10. Abdomen: no history of indigestion; no areas of tenderness or rigidity; no mass; no hernia.
11. Genitalia: no urethral discharge; no visible lesion.
12. Spine: normal posture and range of motion.
13. Extremities: must be normal except (a) one finger amputation permitted if both thumbs are present; or (b) two toe amputations permitted if both great toes are present.
14. Central nervous system:
 - a) mental status not passed upon except by special request;
 - b) pupillary and knee reflexes, and the sense of balance will be routinely tested and must be normal.
15. Laboratory: the following tests will be made routinely, and their results must fall within the range of generally accepted normal limits:
 - a) vital capacity;
 - b) hemoglobin percentage;
 - c) total and differential white blood corpuscle count;
 - d) blood sedimentation rate; and
 - e) Kahn, Kline or Eagle flocculation tests of blood serum for syphilis.
 - f) The urine is to be tested for albumen and sugar; both must be absent.

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CLASS ~~I~~ II

Minor Physical Defects.

1. Twenty-five to fifty percent over average weight for height; and as low as 25% under average weight for height.
2. Chronic, non-disabling, easily curable skin diseases of small to moderate extent.
3. Vision which can be corrected to 20/70 in each eye.
4. Seventy-five to ninety percent of normal hearing in each ear; or normal hearing in one ear and as little as 50% of normal in the other.
5. Mouth and throat:
 - a) pyorrhea beyond the grade of 2 plus (on a basis of zero to 4 plus for all gradations);
 - b) one or more dead teeth with root abscesses;
 - c) fewer than 16 teeth, 8 of which oppose 8 others, unless replaced by dentures;
 - d) obviously infected tonsils.
6. Nose:
 - a) chronic sinusitis;
 - b) enlarged turbinates or chronically edematous mucosae which obstruct easy breathing through either side of the nose; and
 - c) history or evidence of allergic rhinitis (hay fever).
7. Lungs:
 - a) inactive tuberculosis of moderate amount or less (National Tuberculosis Association classification);
 - b) chronic bronchitis or bronchiectasis which does not produce disability;
 - c) non-disabling emphysema;
 - d) history or signs of asthma; and
 - e) silicosis.
8. Heart:

All types of heart disease in which there is full compensation (class I, American Heart Association classification), and in which there is only early enlargement as determined by x-ray studies.
9. Circulation:
 - a) elevation in blood pressure on repeated examinations in the following degrees:
 - 1) systolic pressure above 100 plus age plus 20, and not over 180 mm.'s mercury;
 - 2) diastolic pressure over 90 and under 100 mm's. mercury;
 - b) all cases of easily demonstrable arteriosclerosis except when associated with a marked increase in blood pressure; and
 - c) superficial varicosities to grade 3 plus.
10. Abdomen:
 - a) evidence of chronic gastro-intestinal disease which is causing indigestion;
 - b) one hernia which is easily reducible in the case of a man who is a good operative risk.

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CLASS ~~Y~~ (continued)

11. Genitalia:

- a) any demonstrable focus of active gonorrhoeal infection;
- b) hydrocele larger than grade 2 plus;
- c) varicocele larger than grade 2 plus.

12. Spine: evidence of healed inflammation, infection, or injury, or of congenital abnormality which has resulted in less than 50% limitation of motion.

13. Extremities:

- a) a man must have at least 2 entire fingers and an entire thumb on each hand; or
- b) half a thumb and four entire fingers on one hand, and an entire thumb and three entire fingers on the other hand;
- c) must have the great toe and at least two other toes on each foot;
- d) no other amputations are permissible in "Y" classification;
- e) there must be no more than 25% limitation of any one joint of the extremities (except digits); and
- f) there must be no deformity of an extremity resulting from illness, injury, operation or malformation which produces more than 25% of disability in an extremity.

14. Central Nervous System:

- a) any treatable lesion of the nervous system;
- b) any slowly progressing degenerative disease not as yet producing disability, and
- c) any residuals of previous inflammation or infection not producing disability at the time of the examination and not likely to progress further.

15. Laboratory:

- a) any blood dyscrasia, the treatment of which is usually successful;
- b) latent syphilis;
- c) persistent albumuria to the degree 1 plus and not associated with hypertension, hematuria, or increased blood sedimentation rate; and
- d) diabetes.

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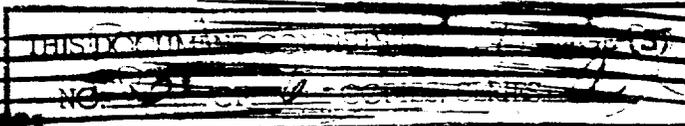
CLASS Z 111

Major Physical Defects.

1. More than 50% over average weight for height, and more than 25% under average weight for height.
2. Chronic, disabling, not easily curable skin disease.
3. Vision which cannot be corrected to 20/70 (Snellen) in each eye.
4. Less than 75% of hearing in each ear; or, if one ear is normal, less than 50% of normal hearing in the other.
5. No findings in mouth or throat except as noted later, warrant a "Z" classification.
6. No findings in the nose except as noted later, warrant a "Z" classification.
7. Lungs:
 - a) tuberculosis which is active or possibly active;
 - b) silicosis associated with any tuberculosis of the adult type;
 - c) disabling chronic infections other than tuberculosis;
 - d) disabling emphysema; and/or
 - e) disabling asthma.
8. Heart:
 - a) all lesions in which the functional capacity is grade 11A (American Heart Association classification) or less; and
 - b) all instances in which there is more than early enlargement of the heart as determined by x-ray studies.
9. Circulatory:
 - a) persistent blood pressure readings higher than 180 mm.'s mercury, systolic and/or 100 mm.'s mercury diastolic;
 - b) all cases of advanced arteriosclerosis (grade 4 plus) with or without increased blood pressure;
 - c) superficial varicosities, grade 3 plus and 4 plus; and
 - d) all cases of aneurysm.
10. Abdomen:
 - a) any hernia not easily reducible; and
 - b) any hernia in an individual who is not a good operative risk.
11. No findings in the gonitalia, except as noted later, warrant a "Z" classification.
12. Spine:
 - a) any active inflammation or infection of bone or joint tissue which is likely to result in deformity or disability; and
 - b) healed infection, inflammation, injury, operation or malformation which has resulted in more than a 50% limitation of motion.
13. Extremities:
 - a) amputations which are more extensive than those classified under "Y" ; and
 - b) more than 25% limitation of motion of any one joint (except digits).

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VIII Post-Employment RoutinesA. Special Hazards Group **SECRET**

In special hazards group including principally those in the operations building, there has been instituted a seven-week check-up. This will be discussed under sections C and D of this part of the report.

No other definite time period has been established for rechecking other groups up to the present time.

B. Food Handlers

There are no special food handler examinations after the routine pre-employment examinations. The Public Health Department feels that the extremely rapid turnover of food handlers makes any follow-up procedure impractical.

C. Periodic X-ray Examination

All persons found to have pulmonary or cardiac pathology and not terminated because of it, are kept under observation with recalls for chest x-rays from 1-3 months intervals. Periodic x-ray examinations are made also on the special hazards group at the time of their recheck examinations. X-rays are made after any major acute exposure of an individual to uranium.

D. Laboratory Checks on Special Groups

Laboratory examinations are made on the operations group at the time of their recheck. This includes complete blood count, urinalyses and urine test of uranium where exposures indicate it.

Laboratory examinations are also made after any major acute exposure which an individual may have had to uranium. It has been the policy to take daily samples for seven days after the incident. Sedimentation rates are taken on some of these people as well.

Occasionally, such special tests as fasting blood sugar, bleeding and clotting times, and icteric indices may be ordered if necessitated by the clinical condition of the patient.

Laboratory analyses of uranium in the urine are determined by the Carbide and Carbon Chemical Corporation analytical chemistry laboratory and are reported weekly to Dr. J. G. Kemmer except in cases of extremely high results in which case Dr. Kemmer is notified immediately.

Personnel are recalled through the office of the dispensary or through the offices of the attached field first-aid stations. An attempt is being made to have these recalls issued as soon as an abnormal finding occurs.

IX Occupational Accidents and Diseases:

A. Mechanical Injuries

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All mechanical injuries are referred by the foreman either to the dispensary or first-aid stations (Exhibit II a & b). Seriously injured employees may be transported by the ambulances available on the Area to the dispensary or later to Oak Ridge Hospital.

On arrival at the dispensary, the patient's chart is pulled and a code number showing occupational injury is marked on the front of the chart. Cases are then seen in order of arrival unless they are emergencies. The chart is then initialed by the nurse or doctor seeing the patient. Cases requiring bed care in the dispensary are similarly handled. If a return visit is required, the date is indicated on the referral card initiated by the foreman. Such injury cases are reported to foreman and tinskeeper (Exhibits XIII and XIV).

B. Injuries Due to Toxic Materials

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Injuries due to toxic materials are handled by the regular dispensary staff. An employee giving a history of exposure to uranium or fluorine compounds, is treated according to an established routine which is varied according to the site of the injury, i.e., the eyes, skin, or to the respiratory tract. Most respiratory cases receive oxygen therapy and are kept in bed for a variable period if the exposure was prolonged or clinical findings justify doing so (Exhibit IV).

C. Type Service

1. Dispensary service (with attending physician) is available twenty-four hours per day (Exhibit I). Meals are provided from the cafeteria. Routine examinations are usually limited to the 8-4 shift.

2. Patients requiring bed treatment for short periods who are not sick enough for regular hospitalization are cared for in the wards. Routine medication, nursing care, laboratory work, and diets are provided for these cases whether occupational or welfare. The ward is on twenty-four hour duty with a nurse in attendance (Exhibit XII).

3. Night cases: Night cases are treated similarly to cases occurring in the day time.

4. Armed Forces cases are admitted on special slips. (See Exhibit XVI.)

D. Disposition of Cases

Surgeon's first reports originate in the dispensary at the present time and in the various field first-aid stations. Employer's reports originate from the foreman and are sent through management channels. (See Exhibits XIX and XX.)

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DATE 10/10/01 BY SP-5 RLB/...

X Non-Occupational Accidents and Illnesses

A. Disposition

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1. **Handled in dispensary:** Initial visits on non-occupational illnesses and emergency treatments of non-occupational accidents are handled by the dispensary. If more than two visits are necessary, further disposition is made.

2. **Referred to family physicians:** In the further disposition, the patient is referred either to Oak Ridge Hospital, its K-25 dispensary, or, if living off the Area, to the family physician. These referrals are not necessarily made in writing.

3. **Public Health Reports:** All cases of gonorrhea are referred immediately with a written referral to K-25 dispensary or to Oak Ridge Hospital. Contact is maintained with these places to insure completeness of treatment.

All new cases of syphilis are rechecked, and if positive are sent to special clinics at K-25 dispensary or Oak Ridge Hospital. Reporting of all venereal cases to Public Health is done through these clinics.

Tuberculosis cases diagnosed and confirmed by x-ray are personally notified and a letter sent to Public Health describing the extent and chronicity of the chest process. A copy of the letter to Public Health is kept on file in the dispensary, and another copy furnished the District Medical Department. It is the general policy of the companies concerned to terminate all active or severe chronic tuberculosis cases.

Instances of other reportable illnesses are also reported to Public Health.

4. Various daily and weekly summary reports are made to the Medical Director. (See Exhibits XXI and XXIV.)

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XII Special Procedures:

Except in the case of disaster there are no special procedures, personnel, or equipment peculiar to the Area and of medical significance not already included in this report. An outline of the procedure to be followed in case of a disaster is attached.

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CARBIDE AND CARBON CHEMICALS CORPORATION

K-25 PLANT

MEDICAL DEPARTMENT DISASTER PROCEDURE

July 1, 1945

GENERAL

The Medical Department will concern itself with the care of the injured at the time of disaster. After disaster, it will have the responsibilities of decontamination of involved areas and of pronouncing involved areas habitable.

The Medical Department is housed in a Dispensary and three First Aid Stations. The Dispensary is staffed on week days by physicians, nurses, technicians, clerks and orderlies. One physician is present and in charge on every night shift and Sunday. With him are a limited number of nurses, technicians, clerks, and orderlies. The First Aid Stations are staffed with registered nurses at all times. The Department is prepared to carry a considerable emergency case load, and is probably equal to the handling of the casualties of an incident likely to happen during the operation of the plant. In the event of a disaster with a great number of serious casualties, a field unit of Oak Ridge Hospital will be called to the Dispensary. It is intended that ambulatory cases will go to the First Aid Stations for care, and that all stretcher cases will be brought to the Dispensary.

In the following paragraphs the personnel of the Medical Department, Carbide and Carbon Chemicals Corporation, are referred to as the Carbide staff. The personnel and equipment of Oak Ridge Hospital which are expected to come to the plant are referred to as a field unit. In a disaster of a magnitude warranting the presence of a field unit the following rough divisions of duties will obtain: The Carbide staff will be responsible for the first aid at the disaster site, the treatment of ambulatory cases at First Aid Stations, the evacuation of stretcher cases from the disaster site to the Dispensary, and some of the treatment at the Dispensary. The field unit will be responsible for the rest of the treatment at the Dispensary, and for the transportation of cases from the Dispensary to Oak Ridge Hospital. The exact integration of these functions is set forth below.

I. FIRST AID AT DISASTER SITE

It is assumed that the plant area supervisor in whose area the disaster occurs will have the authority to coordinate and administer all of the problems of demolition, rescue, first aid, and so on. The Medical Department has the responsibility of supervising the training of the various levels of first aid personnel available to the supervisor. The Department also has the responsibility of arranging supplies.

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- A. The levels of first aid personnel are listed below:
 1. Trained personnel of the ^{area} affected.
 2. Trained personnel of ~~un~~affected neighboring areas.
 3. The drivers of ~~the~~ plant ambulances and their helpers.
- B. The supplies available are listed below:
 1. Stretchers, blankets, triangular bandages, and compress bandages at various points throughout the work areas.
 2. Complete supply of first aid equipment in the plant ambulances. Each plant ambulance is also equipped at all times with a bag of sterile instruments and surgical supplies for use by plant physicians at an accident site.

II. TRANSPORTATION FROM DISASTER SITE TO DISPENSARY

This is to be effected by three plant ambulances, each of which can transport four stretchers per load.

- A. The ambulances will follow the shortest route open as defined by the proper authorities at the time of disaster, to the ambulance entrance of the dispensary building.
- B. In the event the dispensary building can not receive cases, the ranking member of the Carbide staff will direct the ambulance drivers to deliver cases to the guard headquarters building.
- C. The line-up room of this building will be used as a casualty receiving point. The south door of the room is to be used as an ambulance entrance.

III. TREATMENT AND CLASSIFICATION OF CASES RECEIVED AT THE DISPENSARY

This will be carried on at the direction of the ranking member of the Carbide staff. He, or some staff member designated by him, will have it as his principle function to decide which cases will be cared for at the Dispensary and which will be transferred to Oak Ridge Hospital.

- A. Those which are to remain under the care of the Carbide staff will be routed from the emergency room of the Dispensary (Room No. 50) into the corridor of the north wing of the building, to be transferred to beds or kept on stretchers in the corridor as conditions at the moment dictate. The treatment of these cases will be at the direction of the ranking Carbide staff member or his appointee.

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- B. Those cases which are to be transferred to Oak Ridge Hospital will be routed from the emergency room (No. 50) into the north-south corridor (front), and from there into the south wing of the building. They may receive clean-up and first aid care in treatment rooms 41 and 47, and plasma injections may be started.
 - C. If a field unit is present the transfer of jurisdiction of cases will be made between the ranking Carbide staff member and the commanding officer of the field unit, or between their respective appointees in the emergency room (50); and the management of cases routed into north-south (front) corridor and through the south wing of the dispensary building will be the responsibility of the commanding officer of the field unit or his appointee.
 - D. The operating room (No. 51) and its auxiliary facilities are to be at the disposal of the commanding officer of the field unit for the treatment of cases transferred to his jurisdiction. The acting head nurse of the Carbide staff will act as assistant to the head nurse of the field unit while the operating room is thus in use.
 - E. The commanding officer of the field unit may decide to keep certain other cases, which are transferred to his jurisdiction, in beds at the dispensary building. In these instances he is to retain control of the cases, and such help and facilities as are available will be extended to him by the ranking member of the Carbide staff.
- IV. Transportation from the dispensary building to Oak Ridge Hospital will be at the direction of the commanding officer of the field unit. His ambulances will report to the east door of the south wing of the dispensary building.
- V. The guard headquarters building is to be used for the care of casualties only in the event there is an overflow at the dispensary building, or in the event that the latter is itself damaged in the disaster. The classification and treatment of cases brought to the guard headquarters building will be at the direction of the ranking member of the Carbide staff only until a field unit arrives, when these duties will fall to the commanding officer of the field unit. Evacuation of cases from the guard headquarters building to Oak Ridge Hospital will be the responsibility of the commanding officer of the field unit.
- VI. Employees who have been brought to the Dispensary as disaster casualties will not be permitted to return to the plant. Exceptions to this rule are to be made only by the ranking member of the Carbide staff.

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VII. SUPPLIES AND FACILITIES AT THE DISPENSARY BUILDING

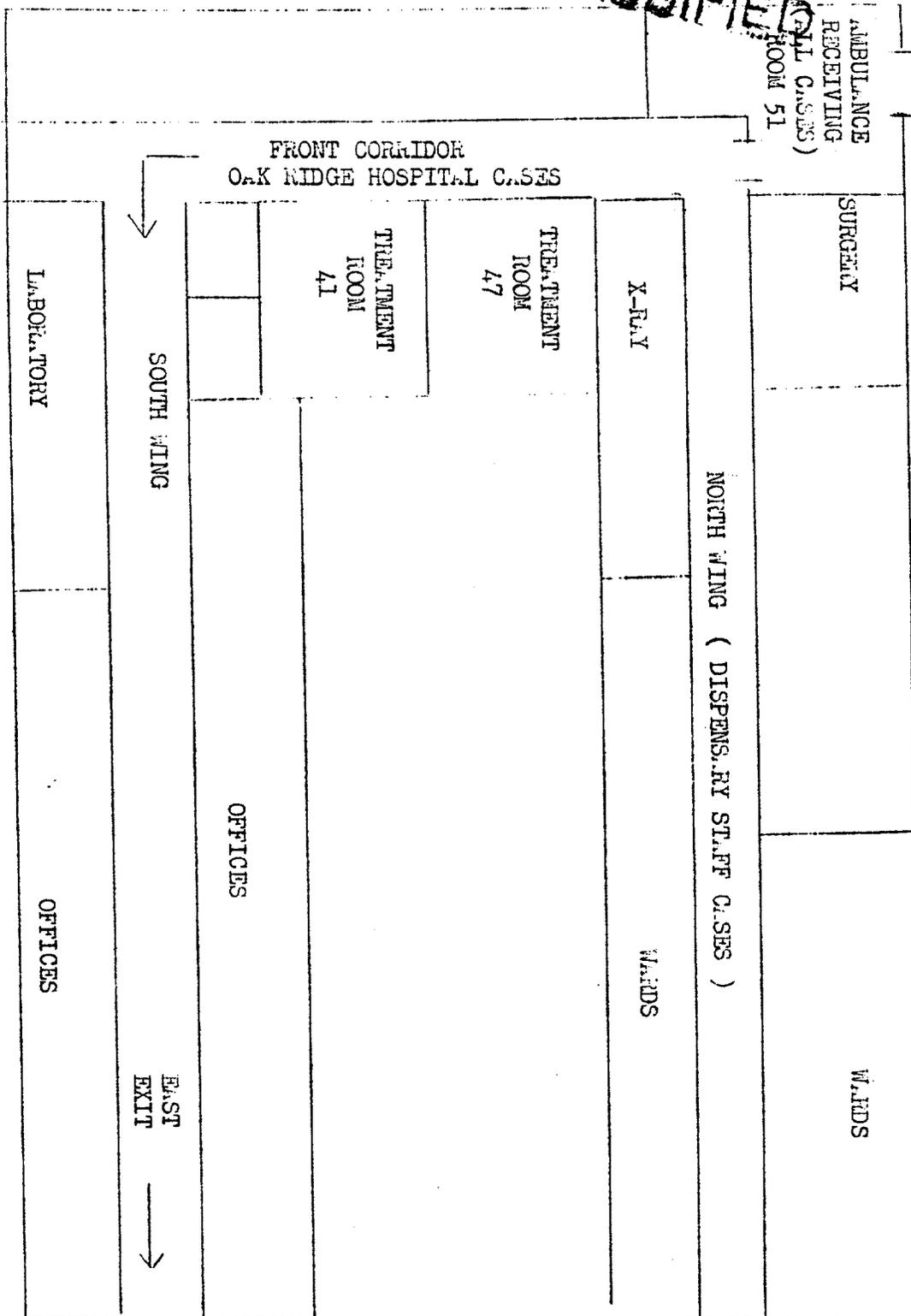
- A. Large emergency room for receiving ambulance cases, with wash-up facilities of considerable magnitude.
- B. Operating room, scrub-up room, and supply sterilization room, with supplies and instruments adequate for the performance of considerable minor surgery.
- C. Splints, drugs, 50 units of plasma, 10 oxygen breathing assemblies.
- D. Five wards with a total of 24 beds, with adequate quantities of standard supplies for this number of beds.
- E. Two treatment rooms with facilities for wash-up and emergency dressing.
- F. X-Ray Department.
- G. Laboratory Department.
- H. Fifteen office rooms which could be used for the temporary storage of one to five stretcher cases each.

VIII. COMMUNICATIONS AT THE TIME OF DISASTER

- A. The Carbide staff members will be called from their homes according to the general plan for the plant.
 - B. The request for a field unit from Oak Ridge Hospital will originate with the ranking member of the Carbide staff present at the Dispensary. He will communicate it through the channels defined in the general plan for the plant.
 - C. Telephones ~~8028~~⁸²²⁵ and 8316 will be used for incoming calls only.
- IX. Attached are diagrams showing the proposed flow of cases, and a modified drawing of the dispensary building.
- X. The ranking member of the Carbide staff has the responsibility for pronouncing involved areas habitable after a disaster.

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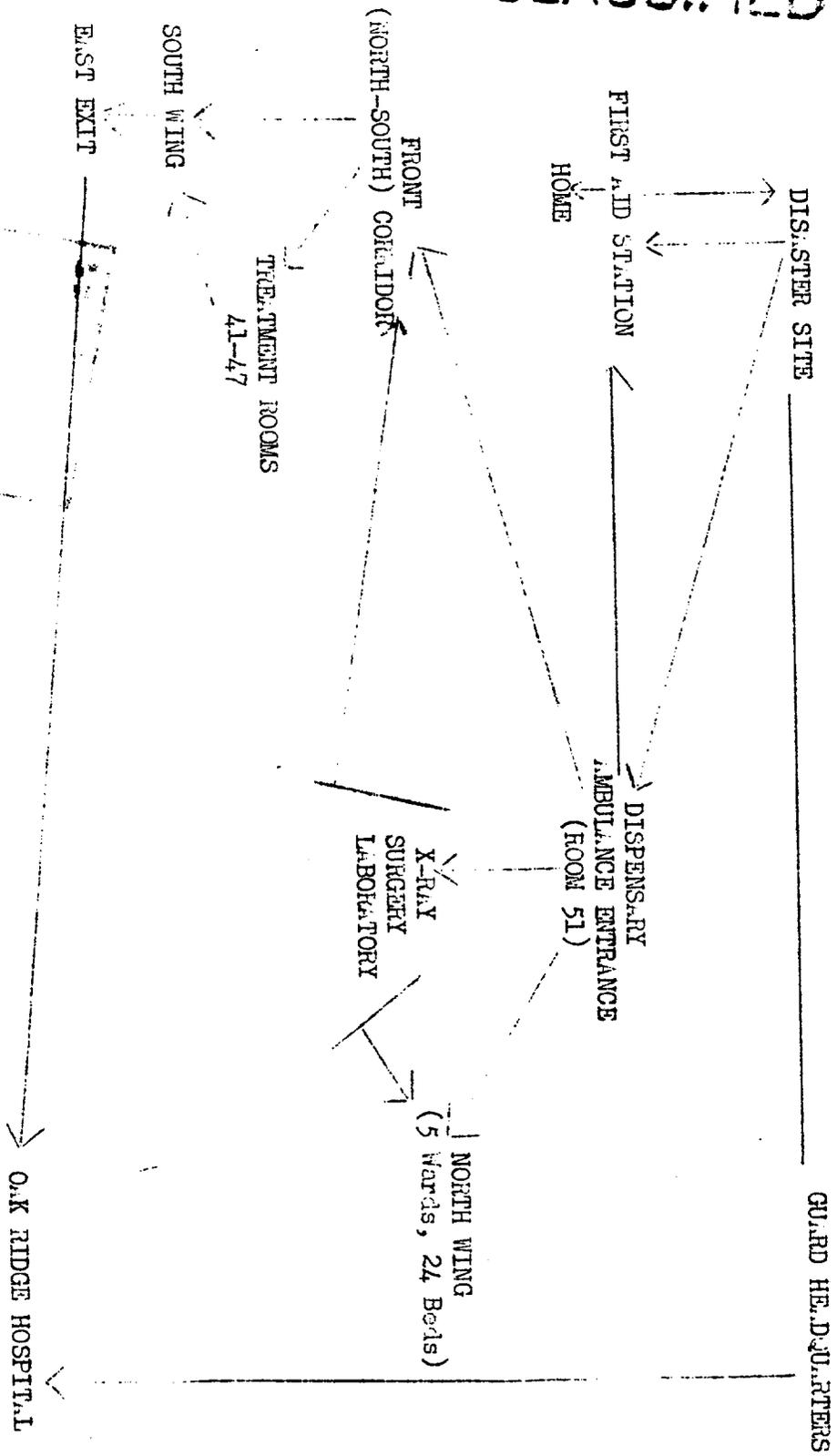


DISPENSARY BUILDING

NO SCALE DIAGRAM
SHOWING FLOW OF CASUALTIES

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~~NO. 17 OF 62 COPIES, SERIES 11~~

III MEDICO -LEGAL

A. Status of Contracts:

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Active contracts exist between the United States Engineer District and both Ferrelve Corporation and Carbide and Carbon Chemicals Corporation. These contracts specify pre-employment, occupational injury and sickness medical care.

Attached are statements of insurance costs for Carbide and Carbon and Ferrelve Corporations.

Attached, also, are photostatic copies of the State of Tennessee Compensation Act.

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CONTRACTS AND INSURANCE LOSSES

Contract W-7409-Eng-100

Pericleve-C-50

Report through 11 Feb. 45

<u>Compensation</u>		<u>Total Incurred Losses & Expense</u>
Non-serious, closed	1	\$ 18.00
Non-serious, open	1	-
Serious, closed	0	-
Serious, open	<u>4</u>	<u>5,385.00</u>
Total	6	\$ 5,403.00

(Includes one fatality in Philadelphia:

9-2-44-~~Operating~~ Operating Chemical Plant equipment. Equipment failed. - \$5,500.00)

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CARDON AND GARBER CHEMICAL CORPORATION

18 Nov. 43 to 18 Feb. 45

Contract W-7405-Eng. 26

<u>Compensation</u>	<u>Number</u>	<u>Incurred Losses & Expense</u>
Non-serious, closed	29	\$ 144.70
Non-serious, open	14	1,661.00
Serious, closed	2	1,010.25
Serious, open	19	25,966.00
Total	64	\$ 28,781.95

(Includes one fatal accident:
1-23-45;

guard barracks: \$5,150.00)

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(3) 8-24-43

Workmen's Compensation—Statute Summaries
→ For current decisions see the Topical Index.

695

[¶ 1046]

TENNESSEE

1. **Source of Law.**—Unless otherwise indicated, all references are to the Code of Tennessee, 1932, Part I, Title 14, Chapter 43, as amended to date.

2. **Employments Covered.**—(a) **Private.**—Elective, as to all employments except those employing less than 5 employees, farm labor, domestic service, casual employees (not in usual course of employer's business), and interstate common carriers while engaged in interstate commerce which common carrier and such interstate business is already regulated as to employer's liability or workmen's compensation by act of the Congress of the United States; provided, however, that this chapter shall apply to those employees of such common carriers provided, however, that this Chapter shall apply to those members of such common carriers with respect to whom a rule of liability is not provided by Act of Congress of the United States (*Sec. 6856, as amended by L. 1941, Ch. 20; as amended by L. 1943, Chap. 120, effective February 11, 1943*). Voluntary, as to employments having less than 5 employees (*Sec. 6856(d)*). Principal liable for compensation to employees of contractor or subcontractor where injury occurs on his premises. Claims must be presented and instituted against immediate employer (*Sec. 6866*).

(b) **Public.**—Voluntary as to state and subdivisions and any department or division thereof (*Sec. 6856(e) as amended by L. 1941, Ch. 20*).

3. **Insurance.**—Electing employers must insure:

(a) by Self-Insurance (*Sec. 6895 as amended by L. 1941, Ch. 90, Sec. 11*); or

(b) with Private Companies (*Sec. 6895 as amended by L. 1941, Ch. 90, Sec. 11*):

(1) **Form and Notice of Contract:**—Contract must contain following clauses: (1) agreement by insurer that it will promptly pay compensation to person entitled thereto; (2) this obligation shall not be affected by any default by insured; (3) this agreement shall be deemed to be a direct promise to employee, enforceable in his own name; (4) notice to employer is notice to insurer; (5) jurisdiction over employer is jurisdiction over insurer; (6) that all awards against employer shall bind insurer (*Secs. 6899, 6898*).

(2) **Cancellation:**—No statutory provisions.

4. **How Election Is Made.**—(a) **By Employer.**—Presumed in absence of notice posted in establishment and filed with bureau of workshop and factory inspection (*Secs. 6853, 6854(a)*).

(b) **By Employee.**—Presumed in absence of notice to employer and Division of Workmen's Compensation, Department of Labor (*Secs. 6853, 6854(b)*).

5. **Defenses Abrogated if Employer Does Not Elect.**—Assumed risk, fellow servant, and contributory negligence (*Sec. 6862*).

6. **Suits for Damages After Election by Both Employer and Employee.**—Permitted if employer fails to insure risk (*Sec. 6895 as amended by L. 1941, Ch. 90, Sec. 11*).

7. **Special Contracts.**—Waivers forbidden (*Sec. 6867*).

8. **Injuries Covered.**—Personal injuries by accident arising out of and in course of employment, unless due to willful misconduct, intentional self-inflicted injury, intoxication, or willful failure to use safety appliances, or perform statutory duties (*Secs. 6852(d), 6861*).

9. **Waiting Time.**—One week; none if disability continues for 4 weeks or more (*Sec. 6876 as last amended by L. 1941, Ch. 90, Sec. 4*).

Workmen's Compensation Law Reporting Service

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For current decisions see the Topical Index.

10. Compensation Benefits.—(a) Per Cent of Wages.—Death, 20 to 60 per cent (Sec. 6883 as amended by L. 1941, Ch. 90, Sec. 8; as amended by L. 1943, Ch. 110, effective Feb. 11, 1943). Disability, 60 per cent (Sec. 6878 as amended by L. 1941, Ch. 90, Sec. 5.)

(b) Maximum and Minimum Weekly Compensation Payments.—Maximum, \$18; minimum, \$7, or actual wages (Secs. 6878 as amended by L. 1941, Ch. 90, Sec. 5; 6883 as amended by L. 1941, Ch. 90, Sec. 8; as amended by L. 1943, Ch. 110, effective Feb. 11, 1943).

(c) Maximum Period.—Death, 400 weeks (Sec. 6883 as amended by L. 1941, Ch. 90, Sec. 8; as amended by L. 1943, Ch. 110, effective Feb. 11, 1943). Permanent total disability, 550 weeks (Sec. 6878(d) as amended by L. 1941, Ch. 90, Sec. 5). Others, 300 weeks (Sec. 6878(b) as amended by L. 1941, Ch. 90, Sec. 5).

(d) Deaths.—(1) Dependents.—Burial expenses, maximum, \$150 (Sec. 6875 as amended by L. 1941, Ch. 90, Sec. 3, as amended by L. 1943, Ch. 117, effective Feb. 11, 1943); 20 to 60 per cent of wages for not over 400 weeks; maximum, \$18; minimum, \$7, or actual wages; total not over \$5,000 (Secs. 6880 as amended by L. 1941, Ch. 90, Sec. 7; 6881; 6882; 6883 as amended by L. 1941, Ch. 90, Sec. 8; as amended by L. 1943, Ch. 110, effective Feb. 11, 1943).

(2) No Dependents.—Burial expenses, maximum, \$150 (Sec. 6875, as amended by L. 1941, Ch. 90, Sec. 3, as amended by L. 1943, Ch. 117, effective Feb. 11, 1943).

(e) Total Disability.—(1) Permanent.—Sixty per cent of wages for 400 weeks; maximum, \$18; minimum, \$7, or actual wages; not over \$7 thereafter for 150 weeks; total not over \$5,000 (Sec. 6878(d) as amended by L. 1941, Ch. 90, Sec. 5). (2) Temporary.—Sixty per cent of wages for not over 300 weeks; maximum, \$18; minimum, \$7, or actual wage (Sec. 6878(a) as amended by L. 1941, Ch. 90, Sec. 5).

(f) Partial Disability.—Sixty per cent of wage loss for not over 300 weeks; maximum, \$18 (Sec. 6878(b) as amended by L. 1941, Ch. 90, Sec. 5). Specified injuries, 60 per cent of wages for fixed periods; others proportionate; maximum, \$18; minimum, \$7, or actual wages (Sec. 6878(c) as amended by L. 1941, Ch. 90, Sec. 5).

11. Medical and Surgical Aid.—Reasonable medical, surgical, dental and hospital, service for 3 months; maximum—medical, \$100; hospital, \$100; except that if medical and hospital expenses actually exceed \$200, the court may direct the employer to pay a maximum of \$300 for medical expenses and \$200 for hospital expenses; charges limited to prevailing rates (Sec. 6875 as amended by L. 1941, Ch. 90, Sec. 3, as amended by L. 1943, Ch. 117, effective Feb. 11, 1943).

12. Nonresident Alien Beneficiaries.—Included (Sec. 6888).

13. Time for Notice and Claim.—Written notice within 30 days unless cause shown (Sec. 6872); claim in 1 year (Sec. 6874).

14. Administration.—(a) By Whom.—Division of Workmen's Compensation; Department of Labor (Title 3, Ch. 2, Secs. 335, 337).

(b) Settlement of Claim.—Voluntary agreements approved by court (Sec. 6877); disputed cases settled by courts (Sec. 6885 as amended by L. 1941, Ch. 90, Sec. 9).

15. Accident Reports Required.—No provision.

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XIV. AN IDEAL INDUSTRIAL MEDICAL PROGRAM

I. Pre-employment Examinations

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A. Objectives:

1. To fit applicants to available jobs, using a long term rather than a short term view. (Early, insidious cardio-vascular-renal disease in a salaried employee is apt to cost an employer much more money than will a hernia in a laborer.)
2. To discover existing occupational diseases resulting from previous employment.
3. To develop basic data for each individual, from which changes possibly resulting from specific industrial exposures may be measured.
4. To develop basic data for comparative use in subsequent complete health examinations, and for use in individually directed programs of health improvement.

B. Scope of examinations: Should include enough procedures to ensure safe placement at work, and to discover the common chronic illnesses. One practical routine includes:

1. Standard History, Developed by Clerk.
2. Complete physical examination, during part of which male applicants are entirely stripped. Ten to twenty minutes should be allowed an examiner for this procedure. Women may be examined only with the assistance of a registered nurse. A satisfactorily complete examination may be done without offense, omitting only examination of genitalia and rectum from the full routine.
3. Eye examination by Snellen wall card; and for certain job categories by means of telebinocular instrument (Keystone, or Hausch and Lomb).
4. Miniature chest x-ray film.
5. Minimum Laboratory Routine.
 - a. Tests of urine for albumen and sugar.
 - b. Sedimentation rate and hematocrit (Wintrobe).
 - c. Hemoglobin percentage.
 - d. Serological test for syphilis.

6. Chronic Gastro-intestinal diseases are discovered only by means of carefully taken histories, and are missed at routine pre-employment examinations.

C. Rejections:

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1. Should be held to a minimum, particularly when applicants are carefully selected with regard to attitude, aptitude, training, experience, etc.
2. Examining physician should be willing to discuss his decisions to reject with employment officers; and should be prepared to admit that physical disadvantages may be outweighed by other advantages.

~~SECRET~~

one very workable plan was the examining physician classify examinees into 3 or 4 groups. In this plan the employment officer accepts or rejects on the basis of previously determined policy, and has the privilege of free discussion with the examining physician for purposes of making exceptions in cases that would otherwise routinely be rejected.

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D. Re-classifications:

1. Examining physician should know enough about plant jobs to be able to suggest alternatives when applicants are deemed unsuited to the jobs sought. The suggestions should not be regarded as decisions, but rather as bases of discussions with employment officer. Final responsibility should rest with employment officer.

II. Treatment of Occupational Injuries and Diseases.

A. Objectives: To develop plans, personnel, and facilities that will provide adequate, integrated treatment for every foreseeable type of case, beginning with first aid at the site of an accident and carrying through major procedures at a community or neighborhood hospital outside the plant.

B. Three levels of treatment activity: First aid in Plant, Plant Medical Department, and Hospital.

1. First aid:

- a. At least 10% of the employees of the plant should be taught either the Bureau of Mines or the Red Cross course in first aid. Of the total subject, 4 portions have application in a plant with a medical departments:
 1. Control of hemorrhage.
 2. Artificial respiration.
 3. Treatment of shock.
 4. Transportation of the injured worker.
- b. Supplies should be limited to adequate quantities of compress (tail) bandages and triangular bandages.
- c. First aid should not be confused with treatment. It is a preliminary to the treatment subsequently to be carried out by professional personnel.

2. Plant Medical Department:

- a. Scope of work done will vary with personnel in attendance:
 1. If run by nurses, the following injuries may be treated and services rendered:
 - a. Abrasions.
 - b. Contusions.
 - c. Lacerations not requiring sutures.
 - d. Fractures of digits in which there is no displacement of fragments.
 - e. Foreign bodies on eye lids, or over sclera of the eye.

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- f. Sprains.
- g. First degree burns.
- h. Second degree burns of small extent, above the waist.
- i. Tetanus antitoxin.
- j. Physiotherapy.
- k. All routine procedures of nurses should be covered by standing orders signed by the physician responsible for the service.

2. If a physician is in attendance, the following injuries may be treated and services rendered.

- a. All the above type of cases referred by nurses.
- b. Fractures not requiring general anesthesia or traction equipment for their reduction, or hospitalization for subsequent care.
- c. Lacerations which can be sutured without general anesthesia.
- d. Foreign bodies on the cornea of the eye.
- e. Second degree burns of moderate extent above the waist.
- f. Third degree burns of small extent.
- g. X-ray diagnosis of injuries.

b. Space for treatment of injuries at plant medical department will be governed by type and quantity of work expected.

- 1. Men and women may use the same waiting area.
- 2. Separate treatment rooms for men and women are usually essential. Simple physiotherapy procedures may be carried on in subdivisions of these rooms.
- 3. A separate eye room is desirable where much of this work is done.
- 4. If much minor surgery is done a separate room should be provided. In general, operating rooms represent a considerable investment which cannot be justified in plant medical establishments.

III. Treatment of Non-occupational Illnesses and Diseases.

A. Objectives:

- 1. Reduction of sickness absenteeism through reduction of duration of illnesses.
- 2. Reduction of absenteeism from injuries through reduction of severity.

B. Scope:

- 1. Early diagnoses of illness.
- 2. Early classification of patients into group who may continue to work and those who must leave plant.
- 3. Minimum treatment of illnesses:
 - a. Enough to permit finishing a work shift with safety.
 - b. Enough to last until personal physician can take over.

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- e. Recommendations of job changes are to be made only after:
 1. The examiner understands the job under consideration.
 2. Problem is discussed with employee's supervisors.
 3. Employee understands what examiner has in mind.

- 2. Partial examinations for specific signs of occupational disease.
 - a. Should vary in scope and frequency with the suspected or known exposure.
 - b. Employees' expressing an interest should have procedures and results of their own examinations explained to them by plant physicians.

- 3. Plant Industrial Hygiene Program.
 - a. A cooperative program carried on by several plant departments, whose primary objective is the prevention of the occupational diseases associated with raw materials, plant processes and maintenance, and/or handling of product; and whose secondary objective is the prevention or aggravation of non-occupational disease by factors of employment.
 - b. The plant medical officer is finally responsible to management for the effectiveness of the program. His specific duties are to:
 1. Plan the overall program.
 2. Evaluate hazards which are discovered by the Safety Department.
 3. Evaluate reports of studies of the working environment.
 4. Select workmen for the exposure through pre-employment and interval health examinations.
 5. Examine workmen for possible effects of exposure.
 6. Help develop safe practice rules.
 7. Keep abreast of medical and industrial hygiene research, in order that new knowledge be put to use in the plant.

- 4. Health Education among employees.
 - a. Bulletins, posters, plant news organ articles.
 - b. Personal case method is most effective, and the method in which most physicians have training; to be applied after complete and partial examinations, and at times of informal, unscheduled consultations.

- 5. Plant Sanitation Program.
 - A. Objectives:
 1. Satisfactorily clean eating facilities.
 2. Satisfactorily clean toilet, wash up, and locker facilities.
 - B. Administration of the program belongs in other departments such as janitor or employee services. Medical Officer should be called on for:
 1. Opinions on chemicals (disinfectants, insecticides, etc.) used.
 2. Periodic evaluation of the program.

- 6. Vaccinations, inoculations, etc., should be made as a matter of convenience to employees, on written request of employee's personal physician. Employees' should pay for the material used.

III. OCCUPATIONAL MEDICAL SERVICES

- 4. Classification of injury patients into group who may continue to work and those who must leave plant.
- 5. Minimum treatment of injuries:
 - a. Enough to permit finishing a shift with safety and comfort.
 - b. Enough to prevent infection, until personal physician takes over.
- 6. Examination before return to work after absences due to non-occupational illnesses and accidents.

7. Facilities and staff will be those provided for the management of occupational injuries and illnesses for the plant. In a large measure these will determine the extent of the work done.

8. General comments:

- 1. The activity may be expected to develop good will among employees. This must be balanced against possible resentment by physicians in the community.
- 2. The cost is probably more than returned through realization of objectives.
- 3. Paternalism is an adherent of the service, and should studiously be avoided.

IV. Preventive Program.

A. Objectives:

- 1. Prevention of occupational diseases.
- 2. Prolongation of lives and years of productivity of employees.
- 3. Reduction of absenteeism from ordinary illnesses.
- 4. Reduction of occupational accident frequency.

B. Scope:

- 1. Routine complete examinations of all employees.
 - 2. Partial examinations for specific signs of occupational disease.
 - 3. Plant industrial hygiene program.
 - 4. Health education among employees.
 - 5. Plant sanitation.
 - 6. Vaccinations.
- 1. Routine complete physical examinations of all employees.
 - a. Should include the procedures of the complete pre-employment examination (I., E.).
 - b. Should be done at intervals of 1 to 3 years, depending on age, findings at last examination, and nature of work.
 - c. Should be followed by personal interview between examiner and examinee, during which the following are to be discussed:
 - 1. The diagnosis discovered.
 - 2. The corrective measures that should be useful.
 - 3. Compatibility of present job with present state of health.
 - d. A full report of findings should be made to physician selected by examinee in those cases in which corrective measures are indicated.

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Form for History and Physical Examination

LAST NAME	FIRST NAME	MIDDLE NAME	ADDRESS
PLANT	SOC. SEC. NO.	TYPE OF EXAMINATION—EMPLOYMENT—REEMPLOYMENT—ANNUAL—SEMIANNUAL—SPECIAL—TRANSFER—FINAL	DATE OF BIRTH
SEX M— F—	RACE W— N— O—	HAZARD	OCCUPATION
PREVIOUS INDUSTRIAL EXPOSURE—TYPE AND DURATION			
MARITAL STATUS	NAME OF SPOUSE	NO. LIVING CHILDREN	NO. STILLBIRTHS
NO. MISCARRIAGES	OTHER		
MEDICAL HISTORY	SCARLET FEVER	ORCHITIS	MALARIA
TUBERCULOSIS			
VENEREAL DISEASE	KIDNEY DISEASE		
AREMIA			
GASTRO-INTESTINAL DISEASE	HEART DISEASE	EPILEPSY	SURGERY
ACCIDENTS	REYNOLDS HISTORY	LAST MONTHLY PERIOD	DISABILITY
REMARKS			

HEIGHT (inches)	WEIGHT	TEMPERATURE	PULSE	BLOOD PRESSURE
57				
GENERAL APPEARANCE YES NO		RIGHT LEFT		MOUTH YES NO
ABNORMAL BODY CONFIGURATION		68-69 VISION UNCORRECTED	20/ 20/	33 TEETH—POOR REPAIR
PALLOR		70-71 VISION CORRECTED	20/ 20/	34 DENTURES—PARTIAL
CYANOSIS		72 ABNORMAL COLOR VISION	YES NO	—COMPLETE
JAUNDICE		EARS YES: NO - YES: NO		35 GUMS INFECTED
EYES RIGHT LEFT YES NO YES NO		73 PURULENT DISCHARGE		GUMS RETRACTED
58 PUPILS—UNEQUAL		74 CERUMEN		METAL LINE PRESENT
59 —IRREGULAR		75 DRUMS PERFORATED		36 DEVIATION OF TONGUE
60 ABNORMAL REACT. TO LT.		76 ABNORM. AUDITORY CANAL		LESIONS OF TONGUE
61 ABNORMAL REACT. TO ACC.		77 HEARING	/36 /36	
62 EXOPHTHALMOS		NOSE YES NO		THROAT YES NO
63 NYSTAGMUS		29 ENLARGED TURRINATES		37 TONSILS—ENLARGED
64 STRABISMUS		30 DEVIATED SEPTUM		—INFECTED
65 CATARACT		PERFORATED SEPTUM		—ABSENT
66 CONJUNCTIVA CONGESTED		31 MUCOUS MEMB. PALE		—TAGS
67 CORNEA CLOUDY		MUCOUS MEMB. CONGESTED		38 PHARYNX—CONGESTED
		32 ABSENCE OF SENSE OF SMELL		39 ABNORMAL SOFT PALATE

NECK YES NO	ABDOMEN YES NO	ADENOPATHY YES NO
40 THYROID—ENLARGED	53 —SCARS	63-64 CERVICAL
—SMOOTH	—TENDRINESS	EPITRACHEAL
—ROCKY	—NODULES	AXILLARY
41 ABNORMAL PULSATONS	54 LIVER—ENLARGEMENT	TRONCHAL
	SPLEEN—ENLARGEMENT	
	KIDNEY—ENLARGEMENT	
THORAX YES NO	INGUINAL REGION YES NO	HANDS YES NO
42 ASYMMETRICAL	55-56 INGUINAL HERNIA	65-66 ATROPHY OF FINGER-TIP RIDGES
FLAT	RELAXED INING	ERYTHEMA AROUND NAILS
BARREL SHAPED	HEMORRHOIDOGRAPHY	CLEFSNESS AROUND NAILS
43-44 ABNORMAL BREATH SOUNDS	VARICOCELE	SCALING OF DORSUM OF FINGERS
ABNORMAL RESONANCE	HYDROCELE	67 WARTS
ABNORMAL FRENITUS	FEMORAL HERNIA	KERATOSIS
RALES PRESENT DESCRIBE TYPE AND LOCATION	57 ABNORMALITY OF PENIS	SCARS ON HANDS
	ABNORMALITY OF TESTES	
BREASTS YES NO	RECTUM YES NO	SKIN YES NO
45 SCARS	58 HEMORRHOIDS	68 SKIN DISEASE
MASSSES	FISSURE	VASCULAR NAevi
DISCHARGE	FISTULA	
CIRCULATORY SYSTEM YES NO	59 ABNORMAL PROSTATE	ACCEPTED OR RESTRICTED
46 ENLARGED HEART		RESTRICTIONS
17-48 SOUNDS DISTANT	EXTREMITIES—Describe any	
EXTRASYSTOLES	DEFORMITY OR LIMITATION OF MOTION	
FIBRILLATION		DIAGNOSIS
SYSTOLIC MURMUR		
DIASTOLIC MURMUR		
49 SCLEROTIC ARTERIES		
50 VARICOSE VEINS		
EDEMA		
(ANATOMICAL DIAGNOSIS)		
SPINE YES NO	REFLEXES YES NO	
51-52 ABNORMAL—CERV. SPINE	ABNORMALITY OF BICEPS	
—THORACIC SPINE	—TRICEPS	
—LUMBAR SPINE	—PATELLAR	
—SACRAL SPINE	—ACHILLES	
	—SUPERFICIAL	
	POSITIVE ROMBERG	
		SIGNATURE

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LABORATORY EXAMINATION

Plant _____

Date			
Name of the Employee			
Social Security No.			
Weight			
Blood Pressure			
Urinalysis			
Reaction			
Sp. Gr.			
Sugar			
Albumin			
H.E.C.			
S.B.C.			
Casts			
Epi Cells			
Blood Examination			
R.B.C.			
W.B.C.			
Hb.			
Differential:			
Mono			
Lym			
Segs			
St			
Abnormal Cells			
Baso			
Eosin			
Kline			
Kahn			
Sed. Rate			
Vol Packed Cells			
EKG			
Others			

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CARBIDE AND CARBON CHEMICALS CORPORATION

OAK RIDGE, TENNESSEE

X-RAY EXAMINATIONS

Medical No.	Name	Reading
-------------	------	---------

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Name _____ Med. No. _____
(Last) (First) Middle

Doctor _____ Date _____

RBC	WBC	Hb.	Diff.
Eosin	Baso	Ab.Cells	St. Segs.
Sed. Rates			Lym Mono
Vol. P. Cells			Kline:
			Kahn :

Urinalysis: Ekg :
 Reaction Stools, Sputum, etc.
 Sp. Gravity Other Tests
 Sugar
 Albumin
 Microscopic Reported by _____

Laboratory Request Sheet

MU-300

EXHIBIT VI

Date _____ Payroll No. _____ Cafeteria _____

Name _____

Address _____

Employer _____

Age _____ Sex _____ Color _____

Kline _____ Kahn _____

Widal _____ Throat Culture _____

Bacteriological Laboratory Record

EXHIBIT VII

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PHYSICIAN'S EXAMINATION FORM
(TO BE USED IN DETERMINING THE PHYSICAL CONDITION OF MEN
TO WEAR OXYGEN BREATHING APPARATUS)

In order that wearers of self-contained oxygen breathing apparatus may have their safety assured and that they may work efficiently, they should be examined by a physician, found to be sound in body, normal in mind, and physically fit. The following information is the minimum that should be obtained by such an examination:

Name Address
(Print name)

Employer Address

Age Weight Height Nose: Normal ; abnormal

Eyes: Vision, right eye ; left eye
(Must have 20/40 or better, uncorrected vision, in each eye, or 20/50 in one eye with 20/20 or better in other eye.)

Hearing: Right ear ; left ear
(Ordinary conversation should be heard at a distance of 20 feet.)

Teeth
(No detachable bridges or plates, and have at least four natural canine and bicuspid teeth or nondetachable bridges in lieu thereof.)

Chest: Normal ; abnormal

Chest expansion: Full expiration ; full inspiration

Throat: Normal ; abnormal Lungs: Normal ; abnormal

Heart: Normal ; abnormal *Pulse rate: Standing ; after exercise

After 2 minutes' rest Blood pressure: Systolic ; diastolic

Abdomen: Weak, scars, or hernia

Loss of extremities: Members Nervous or composed

Is the applicant capable of sustained strenuous work while wearing oxygen breathing apparatus?

.....
(Physician's signature)

Date
(Address)

*The pulse rate should be taken for a full minute as follows: (A) While the applicant is standing; (B) While the applicant is standing after making a step test (18 inches high, 15 times in 30 seconds); (C) After the applicant has been sitting down 2 minutes following the step test. If the third pulse rate exceeds by two beats per minute the first pulse rate, the applicant is not considered physically fit to wear oxygen breathing apparatus.

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EXHIBIT VIII

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Name _____ Dept. _____
 BadgeNo. _____
 Return to Regular Work _____
 Return to Modified Work _____
 Type of Case _____
 Injury Illness _____
 Occupational _____
 Non-Occupational _____
 Should return to Dispensary for re-examination: _____
 Date _____
 Time at Dispensary: _____
 Arrived _____ A.M. _____ P.M.
 Left _____ A.M. _____ P.M.

Medical Department

Date _____
 MU-61 Rev. (Over)

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To Employee:

- (1) Report to Dispensary for clearance before returning to work.
- (2) Take this card with you
- (3) Return this card properly signed to timekeeper.
- (4) Timekeeper will note below time employee returned to work and send to Insurance and Compensation Department at once.

The employee named on the card returned to work:

Date _____
 Time _____ A.M. _____ P.M.

Timekeeper.

(Over)

Notice of Occupational Injury

Last Name _____ First _____ Middle _____ Badge No. _____

Department _____ Foreman _____ Date of Injury _____

DISPOSITION: Return to Work _____ Lost Time _____

Attendant _____ Date _____

Orig. Dept. Head; Dup. Safety Dept.; Trip Retain by Medical Dept.
 M-722

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Form No. S. F. 2

STANDARD FORM FOR SURGEON'S REPORT

Approved by I. A. I. A. B. C.

Form with fields: State's Number, File, Carrier, Employer, (The spaces above not to be filled in by Employer), Carrier's File No.

Main report form with sections: The Patient, The Injury, The Accident, Treatment, Disability, and REMARKS. Includes fields for patient info, accident details, treatment, and physician signature.

Cas. Claim 518 (Special) 4-45

EXHIBIT XIX

58

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**STANDARD FORM FOR
EMPLOYER'S FIRST REPORT OF
INJURY**

Approved by I. A. I. A. B. C.

**Complete and send immediately to
CLAIM DEPARTMENT**

United States Fidelity and Guaranty Company

State's	File:.....
Number	Carrier:.....
For:	Employer:.....
Carrier's File No.....	
(The spaces above not to be filled in by Employer)	

Employer	1. Name of Employer CLINTON ENGINEER WORKS—TENNESSEE EASTMAN CORPORATION 2. Office address: No. and St. _____ City or Town OAK RIDGE State TENN. 3. Insured by UNITED STATES FIDELITY AND GUARANTY COMPANY
Time and Place	4. (a) Location of plant or place where accident occurred OAK RIDGE, TENNESSEE Department _____ State if employer's premises _____ (b) If injured in a mine, did accident occur on surface, underground, shaft, drift or mill _____ 5. Date of Injury _____ 19 Day of week _____ Hour of day _____ A.M. _____ P.M. 6. Date disability began _____ 19 A.M. _____ P.M. 7. Was injured paid in full for this day _____ 8. When did you or foreman first know of injury _____ 9. Name of foreman _____
Injured Person	10. Name of Injured _____ (First Name) _____ (Middle Initial) _____ (Last Name) _____ (Social Sec. No.) _____ 11. Local Address: No. and St. _____ City _____ State _____ Phone No. _____ 12. Permanent Address: No. and St. _____ City _____ State _____ Phone No. _____ 13. Check (X) Married _____, Single _____, Widowed _____, Widower _____, Divorced _____; Male _____, Female _____; White _____, Colored _____ 14. Nationality _____ Citizen of _____ Speak English _____ 15. Age _____ Did you have on file employment certificate or permit _____ 16. (a) Occupation when injured _____ (b) Was this his or her regular occupation _____ (If not, state in what department or branch of work regularly employed) _____ 17. (a) How long employed by you _____ (b) Piece or time worker _____ (c) Wages per hour \$ _____ 18. (a) No. hours worked per day _____ (b) Wages per day \$ _____ (c) No. days worked per week _____ (d) Average weekly earnings \$ _____ (e) If board, lodging, fuel or other advantages were furnished in addition to wages, give estimated value per day, week or month _____
Cause of Injury	19. Machine, tool or thing causing injury _____ 20. Kind of power, (hand, foot, electrical, steam, etc.) _____ 21. Part of machine on which accident occurred _____ 22. (a) Was safety appliance or regulation provided _____ (b) Was it in use at time _____ 23. Was accident caused by injured's failure to use or observe safety appliance or regulation _____ 24. Describe fully how accident occurred, and state what employee was doing when injured _____ 25. Names and addresses of witnesses _____
Nature of Injury	26. Nature and location of injury (describe fully exact location of amputations or fractures, right or left) _____ 27. Probable length of disability _____ 28. Has injured returned to work _____ If so, date and hour _____ At what wage \$ _____ 29. At what occupation _____ 30. (a) Name and address of physician _____ (b) Name and address of hospital _____
Fatal Cases	31. Has injured died _____ If so, give date of death _____

Date of this report _____ Firm name **CLINTON ENGINEER WORKS—TENNESSEE EASTMAN CORPORATION**
 Signed by _____ Official Title _____

Can. Claim 524 (Special) 1-15 S. F. No. 1

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