STANDARD FORM NO. 64

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Office Memorandum • UNITED STATES GOVERNMENT

2826

TO : R. W. Cook, Manager of Oak Ridge Operations DATE: JAN 6 1950

FROM : Walter J. Williams, Director of Production, Washington WJW for

SUBJECT: S-50 TAILS MATERIAL

RHTG # 79,164
BOX # 203

REFER TO SYMBOL: PPFM:GFQ

I understand that your office has informally opened the question of the use of the S-50 tails material as supplementary feed for K-25. This suggestion was made, I believe, as a result of the emphasis on the production expansion program and on the increased requirements for U-235, and is significant now since the stocks of the K-25 tails of adequate quality to be re-fed to the present plant with advantage have been appreciably diminished by the current re-feeding program.

The S-50 tails material has not been included in studies leading to the determination of feed requirements, but instead has been informally considered as additional back-up in case of loss of a feed preparation plant. Because of its high assay, however, and because a UF_6 plant will soon be provided in a more secure Oak Ridge location, it may prove desirable to utilize this material for plant feed and its most advantageous use should be determined.

The source of the T inventory required in the K-29 and K-31 additions to the cascade appears to be the most important consideration in such a study. It also may be assumed that, as the new units come into operation and the tails purity decreases, refeeding of depleted tails may be continued whenever advantageous. Oak Ridge figures have shown that the T inventory required for the K-29 and K-31 units represents about 50% of the S-50 stockpile. If immediate use can be shown to be more advantageous than waiting for additional productivity, it may be desirable to adopt a policy of freeing 50% of the subject material for supplementary feeding at the most advantageous time, and retaining the remainder for possible use in supplying K-29-31 inventory. Meanwhile studies can proceed on alternate methods of filling K-29-31. Regarding the latter subject, any change in the inventory requirements and strategic stockpiles in the hex manufacturing operations resulting from the moving of these operations to K-25 and from the use of material recovered at Hanford should be considered, although this aspect would have to be based on tentative assumptions.

It is requested, therefore, that studies proceed on this subject on the basis of the above discussion. Your recommendations in this regard are requested.

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DECLASSIFICATION RECOMMENDED
MALCOLM THEISEN, EASI
Name (ADC) - Organization

DECLASSIFICATION AUTHORIZED
Jean E. Keys EASI
NAME (ADC) - ORGANIZATION
2-29-96
DATE

MATERIALS

R. 25 cps.

[redacted]

DIARY S-50

RHTG # 98,933
BOX # 196

15 FEBRUARY 1945:

Initial examination of area and operations building with safety representative. Also initial check of new dispensary building as to location and equipment. Further technical review of process will be made with technical representation.

Resumé was made of the incident of 1 February 1945 with safety representation. His complete report will be reviewed. Hospital visit and study of chart of [redacted] was made with Medical Department representative. Separate report of [redacted] will be made at later date.

No other sequellae among 15 people involved in the area at the time of exposure on 1 February 1945.

17 FEBRUARY 1945:

Reports of interviews with those involved in accident of 1 February 1945 were briefed. Location of incident was covered and relative positions of people involved determined. A complete report of this incident will be made separately.

Two cases of slight exposure to face, eyes, and nose were seen, given routine treatment and discharged. Another reported case of ingestion of material in water orally was seen by dispensary doctor and discharged asymptomatic. Follow-up ruines of this case are to be obtained if possible for T excretion.

Urines from [redacted] taken to Dr. Priest's laboratory for T excretion analyses. Reports will go to Dr. Kammer.

Recommendation for salt tablet dispensers, checking of drinking water and meat to be taken up with Major Ferry.

Following the inspection tour, a resumé of safety measures was studied which will probably be approved in final draft.

DECLASSIFICATION RECOMMENDED
MALCOLM THEISEN, EASI
Name (ADC) - Organization
2-15-96
Date

19 FEBRUARY 1945:

Check-up tour of operations building was made with Tully, Rasmussen, Faust and Brawley. Nineteen of twenty-one units were in operation at one time during the day. Number 21 pilot rack was being reconditioned. Check was made of control and transfer rooms setup. One quite large steam leak occurred with no injuries but resulting shut down of two racks. No apparent serious material leaks have occurred in past few days.

Approval was given for salt tablet dispensers. Check of milk

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[redacted]

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DIARY S-50 (Continued)

and water supplies is being made. [redacted] seen at Mr. Mastin's request regarding injured hand. Slow improvement has somewhat discouraged him, but he feels better satisfied now. Saw [redacted] with recurrent sore throat. No specific pathology in throat. Routine treatment is to be followed.

Safety measures were checked and discussed with above group. Original procedures are being carried out with occasional changes as the need arises.

No further serious "material" incidents.

21 FEBRUARY 1945:

Acting upon the suggestion of Mr. Mastin, an investigation of milk source and storage in the cafeteria was made.

At the present time no cold room storage house is available but its construction is anticipated shortly. The present source of milk is the Norris Dairy. The milk is labeled as ungraded but carries the notation of "over 4.5% butter fat".

Milk is delivered daily and is stored in capped bottles on a screened porch with some ice protection. Bottles are taken from here and packed in ice on the cafeteria food line. Wire sealed caps are not removed until the person using the bottle opens it. Beneath this wire capped seal, a regular milk bottle cap is in place.

It is the impression of the examiner that, until the completion of the cold room, all reasonable precautions are being taken. Further complaints have not occurred.

A resume of the charts of the men involved in the incident of 1 February 1945 was begun but further analysis is necessary before a detailed report can be made.

22 FEBRUARY 1945:

Area was visited with Lt. Colonel Friedell, Major Ferry and Mr. Tully. Colonel Friedell examined the dispensary and operations. Fifteen racks were in operation today.

No specific examinations of portions of this area were made.

DIARY S-50 (Continued)

23 FEBRUARY 1945:

Check of operations area revealed no new exposure cases. Two men exposed yesterday to fumes were reported all right today.

Sixteen racks were in operation.

The complete list of persons involved in the incidents of 1 February 1945 is now at hand and, at present, we are locating the charts of them at C & CCC dispensary. One man attributing his difficulty to this incident, did not report until 8 February 1945. He also will be investigated.

24 FEBRUARY 1945:

Report of incident of 1 February 1945 reviewed.

26 FEBRUARY 1945:

Area tour made with Mr. Tully. Small line break in T.R. #10 occurred about 11:00 A.M. Mr. Tully and the examiner were present within 5-10 minutes. Vapor mist all cleared, but odor of material still present. Men in room were working in masks. The mask of one man pulled off accidentally, and he reported to First Aid with some cough and throat irritation. No other immediate medical cases reported from this incident.

A total of 18 exposure cases, due to various small incidents, were reported at S-50 dispensary today. Three cases were sent to Carbide & Carbon Chemicals Corporation dispensary. One had material burn of elbow and after local treatment at dispensary returned to work.

Two had exposures of eyes and face to fits of material with resulting mild conjunctivitis and first degree burns of molar eminences. Eyes were given routine treatment and cold packs of magnesium sulfate were applied to the faces. Both men were comfortable but were still at C & CCC dispensary at 5:00 P.M. Neither had any respiratory symptoms nor admitted to any inhalation of material.

Further data was obtained on the incident of 1 February 1945, and the C & CCC dispensary records were recorded for those seen there.

CASE HISTORY

[redacted] [redacted]

AGE: 25 BADGE NO. [redacted]

On 27 February 1945 while at work in Operations Building as an operator he was in a break in Rack #9. This occurred at 0145.

A break in the weld occurred and the material escaped getting into his right eye. There was a great deal of pain and discomfort. Treated at First Aid at 0215 and 0430. T. 98 BP 100/60. Urinalysis taken.

Patient was put to bed in C & CCC Dispensary and transferred to Oak Ridge Hospital after local treatment to the eyes. (1300).

Patient was in hospital from 27 February 1945 to 12 March 1945. Diagnosis was clinical conjunctivitis (bilateral) and chemical keratitis (O.D.)

He was returned to duty 12 March 1945 but for reasons of management he was sent in for termination on 3 April 1945. He is being referred to Dr. Bryant again on 4 April 1945 for opinion of his eye at time of termination. No laboratory reports are available.

DIARY S-50 (Continued)

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27 FEBRUARY 1945:

Tour of the process building and conditioning shop was made with Dr. Kammer. Reports from Dr. Macklin had revealed heavy emanation readings from this latter area. It is in this room that pipes and tubing are conditioned and final product put into receiving containers for shipment or storage. Dr. Kammer recommended to Mr. Tully that conditions here be brought to the attention of management with the object of having ventilation conditions improved and some of the working conditions rearranged. No serious incidents reported from this area for today. The industrial hygiene program will be started at the area tomorrow. One man was sent to Oak Ridge Hospital with possible corneal damage as the result of an exposure. No final word on his condition there has been recieved.

1 MARCH 1945:

Industrial hygiene examination begun today with ten employees checked regarding history, blood pressure, weight, blood and urine analyses, and pulse. Scoring by Dr. Foulger's blood pressure score method will be done. Chemical analyses of urine by Dr. Priest's laboratory will also be included. A new U.S.E.D. safety man, Sgt. Marquis, has been recently assigned to the area. No serious incidents reported.

2 MARCH 1945:

Further industrial hygiene examinations were done today--eleven in number. Scorings are continuing on the basis of Dr. Foulger's method. No new incidents or significance were reported. Tests are underway for fabric to be used in making gloves, sleeves and aprons for operators. No final results as yet available.

3 MARCH 1945:

Industrial hygiene examinations schedule is being well worked out in the mornings. As yet no urine reports for have been received to add to the records. All records will pass over this examiner's desk upon completion of data. As the result of recommendations from Dr.Kammer a blower fan and hood are to be immediately installed in the conditioning shop. This will help materially in one of the heavy exposure areas. Mr. Overman is preparing a rough draft of a technical manual for use of operators and transfer men in the buildings. A summary of medical facts which might be made available to the men is to be given to Mr. Overman in the event they may be of use. Small incidents are still occurring but no serious injuries are reported for today.

Investigation of water supply and installation of approved fountains will be started with Mr. Blankenship, a sanitary engineer on Monday. Further check of storage and serving of food in the cafeteria will be made also before reference of this is made to Captain Blum's office.

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DIARY S-50 (Continued)

5 MARCH 1945:

Industrial hygiene examinations are continuing at rate of ten per day. Initial complete reports will be checked in next day or two. Follow-up reports of 1 February 1945 accident are almost complete. On the night of 3 March 1945 a major break occurred, comparable to the one of 1 February 1945 in which 390 pounds of "Material" were lost. Only four men suffered first degree injuries. "Depleted" material was being transferred from one tank to another in Transfer Room #7 when a Lunkenheimer valve on one of the antlers on the line blew off. It was not at the point of transfer. According to reports, existing ventilation cleared the vapor out well. Other small breaks occurred over 4 March 1945 with no injuries.

Industrial health exams are still continuing. Report of 1 February 1945 incident should be complete today.

A trip was made with Mr. Blankenship of Captain Blum's office to determine the fitness of drinking water at S-50. In the group making this check were Mr. Blankenship, Colonel Ruckman, Mt. Tully and this examiner. It was determined that one source of water to the plant is city water, but the cleanliness of the carrying pipe is not known. Another source is treated river water, treated at present only in settling basis, and not for drinking. Chlorination is to be performed on this water in the near future, but it will be disconnected entirely from the drinking water system. At present, laboratory facilities for water testing are being investigated and water samples over a two-week period will be checked in an effort to prove or disprove the purity of the water for drinking purposes.

7 MARCH 1945:

Final report of 1 February 1945 incident was turned in today. No major incidents in past 24 hours. Industrial hygiene examinations are to be conducted by departments and, within departments, by foreman groups. Eighteen racks were in operation yesterday. As yet, the six hundred assault masks ordered have not arrived. At the present time we are waiting a report from Rochester on a special type of cloth which may be used for aprons, gloves and sleeves and which will resist the action of C-216. Checkup of the cafeteria is scheduled for tomorrow with public health man

8 MARCH 1945:

Examination of the sanitation of the cafeteria by a member of the Public Health Department sanitary staff was made today. A detailed report of his findings will be submitted in writing, a copy of which will be sent to this office. Three weekly follow-up visits will also be made. It is hoped that some of the prevailing conditions, which are largely due to the short time which the cafeteria has been running, will be improved at the time of later visits. No incidents of a serious nature were reported for the 24 hour period. Industrial health examinations are continuing on schedule again.

Mr. Fletcher of the Water Department has been contacted and arrangements are under way for sampling of the city water, from outlets in the building, to determine its safety for drinking purposes.

12 MARCH 1945
14 MARCH 1945:

Beginning of water sampling program. Mr. Rode of the water sanitation department began his series of daily water samples with one each from (1) the drinking water barrels (2) the change house fountain and (3) the operations building. All three gave good initial chlorine determinations. This study will be completed in about two weeks.

Report of Captain Blum's department on the cafereria reveals many minor changes to be made and a few more important general conditions to be corrected now.

All twenty-one racks are in operation as of 13 March 1945. A few small breaks have occurred, but no injuries other than minor ones have been sustained.

17 MARCH 1945

Operations doing well. One 24 hour period this week without any "breaks" of any sort. 21 racks in operation. Industrial health program well. One of K-25 office force is to be assigned to the clinical part of this program. Report of 1 February incident complete and case reports will be filed in this diary. Case of [redacted] also nearing completion. He was discharged from the hospital on 2-16-45. Much improved.

Water samples are being checked by water department with the ultimate possibility of an adequate drinking water supply before hot weather comes. Ventilation of the operations building during hot weather is also being considered. Cases of [redacted] and [redacted] under discussion regarding period of disability and observation.

19 MARCH 1945:

Operations proceeding well. Still having several small incidents per twenty-four hours without serious injuries. However, industrial health check proceeding according to schedule. Several of those examined showed T urinary excretion in excess of .15 mg/liter. The average of blood pressure readings recorded up to now is definitely lower than the standards set by Dr. Foulger. As yet there seems to be little correlation between these pressures and the general appearance and condition of the people examined.

Several small outbreaks of gastroenteritis are still occurring. Three were involved over the weekend. There is a general feeling of unrest about the food among the employees of S-50. There is to be a further inspection of the cafeteria by public health authorities tomorrow.

21 March 1945

20 racks are in operation today with only occasional small "breaks". To date 150 men have had the industrial health checks. Correlation is as yet not possible. Of the 157, 88 gave abnormal readings, according to Dr. Foulger's scale, 9 questionably normal scores and 55 normal scores.

Report's of the follow up examination of the cafeteria reveal conditions much improved. Two omissions remain to be corrected. A mechanical refrigerator is to be installed for milk storage and a new automatic dish washing unit is to be installed. It is hoped that these measures will have some effect in reducing the incidence of gastro enteritis cases at the plant. No source for these cases has been found.

22 March 1945

Due to an accident at the power house, operations were completely shut down from about 0300-2400 today. Opportunity was taken, as the result of the operations shut down, to increase the number of men having the industrial health check. It is anticipated that operations would be resumed by 2400.

[redacted]

26 MARCH 1945:

After being shut down for approximately 60 hours, operations were begun again, and the racks built up with steam. The shut-down was due to a failure of the power house to supply steam because of some break in the steam line. At 1500 today 13 racks were already in operation. Safety continues good in the operations field.

Beginning at 1100 cases began reporting to First Aid complaining of nausea, vomiting and diarrhea. All mentioned the fact they had eaten chocolate pie. It was found, on investigation, that the pie had been prepared for supper 25 March 1945 and those not used set on a shelf over the oven and served at the canteen from 0900 until the cafeteria opened at 1130. Approximately 25 people reported in between 0930 and 2200. Of these 16 were sent to K-25 dispensary. Ten of these were admitted to the Hospital. The remaining group were given treatment either at First Aid or the dispensary.

28 MARCH 1945:

Recheck of patients involved in the gastroenteritis incident of 26 March 1945 was made today by Dr. Cooper. Results not yet known. Approximately 37 showed some symptoms traceable to the incident. Other isolated cases were found in which the etiology was questionable.

Nineteen racks now in operation since the shutdown. Industrial health examinations are are proceeding according to schedule. Results will be compiled shortly.

One minor material exposure injury seen at the K-25 dispensary yesterday.

30 MARCH 1945:

Operations now up again to 19 racks. Still several small "breaks" are occurring, but injuries have been minimal. A room is being fitted for slit lamp examination of the eyes of those exposed.

The industrial health checkup is now operating efficiently with no unusual difficulties. Occasional high T excretion amounts are being reported. Also there are numerous WBC counts above 10,000. Otherwise, the reports are normal. There have been no further outbreaks of enteritis in the area.

[redacted]

SECRET

3 APRIL 1945:

Operations which have been temporarily down or partially restricted because of steam supply are now resuming. It is anticipated that monthly radiation and air sampl tests will be made in the area. A case of alleged eye injury from material is under observation now. The case is of [redacted] A summary will be included later. A recheck of safety showers in the building is to be made.

In the industrial hygiene examinations it has been suggested by Dr. Kammer that urine samples be obtained on workers by collection of specimens at home either early in the morning or before they come to work on their shifts. Several high T excretions have been reported by the chemistry laboratory, and the validity of the results will be checked to avoid possibility of contamination by the patient.

WEEK OF 9 APRIL 1945:

The examiner was on a week's visit to other areas in the District.

Part of this time was spent at the S-50 pilot plant with Captain Lyon. The entire physical layout and medical program there was discussed in detail.

It is Captain Lyon's opinion that we must place our greatest stress on respiratory and eye protection devices. It is his belief that with the onset of warm weather there will be increasing difficulty in enforcing the wearing of heavy coveralls. He felt that the degree of skin burns was not sufficient to be too alarmed about lack of enforcement of protective clothing.

One major break occurred in S-50 in my absence with the liberation of in excess of 400 pounds of material. There were two minor cases of skin irritation, but none of a nature serious enough to require hospitalization or special therapy.

All 21 racks are now working and the steam problem is now much less acute.

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DIARY S 50 (Continued)

20 APRIL 1945:

Operations proceeding satisfactorily with only minor breaks in past few days. One man, [redacted], hospitalized at C & CCC dispensary because of material inhalation and first degree burns of left index finger and thumb. Condition is satisfactory.

[redacted], involved in the incident of 1 February 1945 and hospitalized for six weeks, returned today and was hospitalized for observation. Various kidney clearance tests will be done in addition to laboratory workup.

Industrial health examinations are being continued but not up to schedule. Further check of this condition will be done.

21 APRIL 1945:

Operations proceeded on schedule today. Occasional minor "break". At about 1900 there was a break in transfer room #2 which was quickly cleared from operations building by the exhaust fans. Two men were reported to have first degree burns. However, in the clearing of the building by the fans, the fumes were drawn down, around and through laboratory #1 outside the operations building. Several people were in the laboratory and in trying to leave it from the side opposite the operations building, were temporarily trapped in a small area between the laboratory and a high fence.

Thirteen people were sent to C & CCC dispensary as the result, and eleven of these received oxygen inhalation therapy. The writer was called and examined eyes, throats, and chests of all involved. Chest x-rays were made of all thirteen cases. These appeared negative on the wet film. Blood and urine analyses were done.

After checking the patients physically, nine were returned to work. Four were kept in bed at the dispensary. They were [redacted], [redacted], [redacted] and [redacted] the colored maid in the laboratory. [redacted] had been in previous exposures and was kept for observation. [redacted] had been out of the hospital only a few days and was complaining of some chest discomfort. Even with no positive findings, he was kept. [redacted] had an exposure three weeks ago and a cold since then. With a temperature of 99.6° she was admitted. [redacted], the maid, complained of burning of inside of chest and stomach. She also had a moderate chemical conjunctivitis bilaterally. Because of this and a first degree skin burn of the face, she was hospitalized.

All those discharged were asked to report to first aid on 22 April 1945 and to return to C & CCC dispensary on 23 April 1945.

11 MAY 1945:

Captain Lyon presented a demonstration and instruction program on the use of the chemical warfare assault mask. This training was given to the personnel charged with training of all new employees.

In addition to his lecture, Captain Lyon also put the group through a practical exercise using a small chamber and capsules of tear gas (chloracetophenone). It is hoped that a more constructive program will be developed in which the safety and operations training will be emphasized individually and the two then tied together. It was also hoped by Captain Lyon that in the training program specific responsibilities would be set for operations, safety and medical departments so that no buck-passing of responsibility would result in case of any major incident.

WEEK OF 13 MAY 1945:

No more than 2/3 of the total number of racks has been in operation at any one time because of the decrease in available steam. It is this writer's understanding that in June there will be a temporary complete shutdown until the new boilers are ready.

During this week there have been occasional small breaks but no major ones. In the industrial health checks certain of the high urinary T values were rechecked with specimens taken while the man was in street clothes. Initial check reports show marked reduction in the former high figures.

[redacted]

15 MAY 1945 - 2 JUNE 1945:

Operations have been on a partial shutdown basis for this period with different racks being down alternately.

The industrial health checks have slowed down considerably and for this reason a new recall card file is being initiated in the office of Mr. Tully under the supervision of Mrs. Le Fevre.

At present machinery is in motion for the study of ten men chronically exposed to operations. It is planned to hospitalize these men for 3-4 days at C & CCC dispensary for urine and blood checks. Further information will be available on this program.

Captain Kimberly made a visit to this area with the writer in order to get a background of the operation hazards, etc., as they relate to dermatology.

30 JUNE 1945:

A special three day physical checkup was conducted with a group of ten enlisted men who were being transferred from this Area. This was done 15 June 1945 to 17 June 1945.

With the assistance of Lt. Goldring and Drs. Dounce, Wills, and O'Connell a series of tests were made using these ten men as patients. The checkup included history, physical examination, blood count, routine urinalyses, urinalysis for T material and catalase, electrocardiogram, chest x-ray and nemerous blood studies.

Results of these tests will be incorporated in a departmental report to be issued later. Initital findings showed no marked abnormalities.

Additions to the plant consist of an auxiliary boiler unit which will provide steam for racks 1-7. This will relieve the load of K-25 power house. Also an outdoor transfer room has been added in which material is transferred from 10 lb. cylinders to large tanks for shipping.

Radiation monitoring readings continue to show high counts for the conditioning shop, a few of the transfer rooms and the bottoms of some of the racks. This seems to be largely a housekeeping rather than an operations problem.

The following people may present later problems from the standpoint of health complaints in connection with their work: [redacted], [redacted], [redacted], [redacted], [redacted], [redacted], [redacted]

[redacted]

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11 JULY 1945:

Operations are proceeding satisfactorily with only a temporary shutdown during the weekend of 1 July 1945.

Several lost-time accidents are existing including [redacted], eye injury from material; [redacted] fractured rib from a fall; and [redacted], back injury while lifting.

The new boiler plant is being rapidly completed and will, when finished, supply steam for Racks 1-7, At the present time new columns are being conditioned and installed in some racks. The conditioning is being done in the open at the north end of the building.

A rearrangement of the Safety Department will occur effective 15 July 1945. Mr. Lynn Miller replaces Mr. John Tully as Company Safety Director and Tec 4 George Le Fevre replaces Mr. Miller as head of the Training Department. An anticipated reduction in plant personnel will bring the total of employees from 1100-1200 down to 600-700.

Industrial health checks from this Area, under the charge of Mrs. George Le Fevre, have maintained an average of 9 or 90% of the expected total.

At the present time about 90% of all operations, maintainance, and laboratory personnel employed prior to 1 June 1945 have had at least one examination and many have had their second.

Only a few high figures for in the urine have been reported in their routine examinations since the improved technique for sample collection has been used. A few high readings, followed by normal ones, have been reported in cases of known exposures to "material blows.

Monitoring reports by Dr. Hurd's laboratory show about 25% improvement in general conditions but the readings are still high. Attention of management has been directed to these weekly reports.

A check is being made with Dr. Paul Johnson of the recorded cases of pulmonary tuberculosis (all forms) as to their disposition, follow-up, and type of work. Copies of Dr. Johnson's records will be forwarded to Captain Bryan.

Names to be watched for possible insurance claims are:

[redacted] - back injury.
[redacted] - eye injury (material)
[redacted] - dermatitis (material?)
[redacted] - chronic bronchitis (material?)

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25 JULY 1945:

Trip was made over the Area with Captain Bryan.

Because of a series of high readings in air analyses in the conditioning shop and technical department workshop, it has been decided to collect urine samples at the end of shift on these workers, after showering.

Captain Bryan and the writer reinvestigated the situation in the conditioning shop where hoods have been installed, some ducts erected and a blower purchased but no motor has been made available for the blower. Action from this department will be drastic if the conditions are not remedied immediately. Also it is felt that there is no necessity for havin- loose coils and papers lying around on the floor interferring with ingress and egress.

The new boiler building is nearing completion, and the oil storage tanks for fuel are in place. This will supply steam for racks 1-7 when completed.

Laboratory #2 is being enlarged and remodeled to prevent recurrence of butane gas accumulation.

The lost-time record for this month is not good. People listed with lost time include:

[redacted] - material eye injury.
[redacted] - material eye injury.
[redacted] - back injury aggravation.
[redacted] - fractured ribs and pneumo-hemo thorax.
[redacted] - back injury.
[redacted] - second degree burns.
[redacted] - infected burns of foot.

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31 JULY 1945:

[redacted], an employee in the conditioning shop has been admitted to Oak Ridge Hospital with a history of abdominal pain, nausea and vomiting. He alleges repeated exposures to material, and our industrial health check-up record shows five exposures in the last month and a half. He has not been previously hospitalized.

Ventilation ducts, fan and motor have been installed in the conditioning shop and should be ready to go today. On 27 July 1945 Mr. Priest's laboratory took air samples at 1000 and at 1630 all men on the day force were called in, had showers and left urine samples. An attempt will be made to correlate air samples and urinary findings.

Frequency and severity figures for July 1945 were among the worst of the entire employment record. It is hoped that this will be rectified during the coming month.

[redacted] was terminated on 16 July 1945 for management reasons and may attempt to allege chronic bronchitis as a result of "material" exposure

11 AUGUST 1945:

Operations, which have been interrupted for steam attachments and cleaning of the columns, have been resumed.

A minor hazard of material escape from the open ends of the columns being cleaned has been remedied.

The ventilating system installed in the conditioning shop has made a definite improvement in working conditions there. Construction is still proceeding in and around this shop and further ventilation and cleaning up of escape aisles is progressing as rapidly as p

In a recent check on the conditioning shop, air and urine were taken on the same day. The air analyses were not unusuall high, but several of the men showed high values in the urine. recheck will be done in about one week of both air and urine an

Attention is directed to the case of [redacted] who alleges a scratch on the elbow while at work. He was seen only at Oak Ridge Hospital with a cellulitis of the elbow several days after the accident. There is a history of alcoholism on the hospital chart.

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