

P2(26218) (700)

~~CONFIDENTIAL~~

SF NSM

29 JAN 1947

27 January, 1947.

To : Chief of the Bureau of Medicine and Surgery.  
Via :  
    (1) The Commandant.  
    (2) Commandant, Twelfth Naval District.  
  
Subj: Quarterly Sanitary Report, Subparagraph (H), for  
quarter ending 31 December, 1946.  
  
Ref : (a) Paragraph 35D9, Manual Medical Department, 1945.  
      (b) Articles 75 1/2 and 76, Navy Regulations.

1. In accordance with reference (a) the subject report is submitted herewith.
2. In view of the confidential nature of the Organization of the Radiological Safety Laboratory contained herein, this report is classified "Confidential" in accordance with instructions set forth in Reference (b).

(1) Subject Report

x S. O.-Naval Shipyd -  
x Medicine - sanitation  
Base

A.G. CHURCHILL  
Capt. (MC) USN  
The Medical Officer.

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AII/JTF-i/P  
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1-B6  
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To: Chief of the Bureau of Medicine and Surgery  
Via: Commandant, Twelfth Naval District

1. Forwarded.

PHILIP LEMLER  
Captain, USN  
Commander

11 Naval Hospital, Rantoul  
Illinois

x S. O.-Naval Shipyd  
x Medicine - sanitation

Rec'd DB 858

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Subject: Quarterly Sanitary Report, for quarter ending 31 December, 1946.  
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B. HISTORICAL DATA

GENERAL

1. The San Francisco Naval Shipyard is located on a peninsula extending into San Francisco Bay on the San Francisco side. The Shipyard has an area of approximately 995 acres, of which 160 acres are still under water. During the year, 1946, due to the post war reduction, space requirements were adequately met, and at no time was there demand for additional area.
2. No major structures have been completed during the past year. Work toward completion of buildings, piers, docks, and other structural projects that were undertaken during the year is progressing satisfactorily.
3. During the first quarter, 1946, the Submarine Dispensary, located in Building #219 was closed, and all medical supplies and equipment, including narcotics, poisons, and alcohols, made available for use by the Industrial Dispensary, Building #210. At approximately the same time the Medical Examining Facilities at the Labor Board were removed to Building #210, and directives formulated to the effect that preemployment, special, and other physical examinations pertaining to civilian personnel would be conducted at the Industrial Dispensary. The Ships Barracks Dispensary, Building #506, was inactivated during the second quarter, 1946, with medical supplies and equipment, including narcotics, poisons, and alcohols, being made available to the Industrial Dispensary. The closing of the above medical activities placed the responsibility of fulfilling the mission of the Medical Department upon the Industrial Dispensary, where work pertinent to medical activities was necessarily concentrated. This fact necessitated numerous rearrangements

Enclosure A

(b)

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of medical equipment, and minor alterations of the building structure in order that facilitation of medical attention might be accomplished more expeditiously to the best interests of the Navy as a whole. At that time the name of Building #210 was changed from the Industrial Dispensary to that of Shipyard Dispensary.

4. The Dental Clinic has been kept in Building #520, separate and distinct from the Medical Department in all matters with the exception that the Hospital Corpsmen attached to and serving on duty are included in the complement of those allotted the Shipyard Dispensary in accordance with BuPers Ltr. Pers-2142-fg over Serial: 272 dated 31 August 1946.

5. In September, an experimental decontamination group was established on the Shipyard in conjunction with the return of Radio Active Ships from Operations Crossroads. This was enlarged as work increased, and experiment and research became more extensive, until 1 November 1946, when the Radiological Safety Laboratory was organized and placed under joint control of the Bureau of Ships, and the Bureau of Medicine and Surgery. This laboratory was installed in Building #506, formerly occupied by the Ships Barracks Dispensary. The complement of the Radiological Laboratory at the time of this report consists of the following:

QUESTION 1 - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9 - 10

- (1) Medical Officer - - - - - 1  
(2) Hospital Corps Officer - - 1  
(3) Line Officers - - - - - 8

- (1) General Duty (line) - - - 10  
(2) Hospital Corps Perfs. - - - 6

#### **The Overall Mission of the Radiological Safety Laboratory:**

1. To serve as a nucleus for the research and development of the radiological problems and development of atomic warfare.

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2. To furnish a highly skilled organization with personnel specifically trained in the naval phases of these problems.
3. To collect and supply technical information and data needed for the training of both military and civilian personnel to meet radiological problems resulting from present or future atomic developments.
4. To develop equipment for protection of personnel both on shipboard and ashore. To develop and test methods and equipment suitable as well as practicable for satisfactory decontamination of ships afloat or at shipyards.
5. To develop instruments for detection of radioactivity and to test, calibrate, standardize and appraise radiological detection devices in collaboration with various designers and Bureau codes.
6. To estimate radioactive contamination and study methods and agents for removal of such contamination, including both quantitative and qualitative studies of the efficiency of these methods and the effects on shipboard materials.
7. To study quantitatively and qualitatively the fission products and fissionable materials and their distribution on certain vessels comprising both target and non-target ships.
8. To determine physiological effects of radioactive and develop treatment methods.
9. To make studies of physical radiological hazards and such in connection therewith as is associated with decontamination procedures.
10. To study the concentration, scattering, and distribution of fission products on various substances and surfaces.
11. To develop absorption agents and precipitants for the more common fission products and fissionable materials.
12. To conduct studies on the adsorption and concentration factors of radioactive substances when exposed to such materials as steel plate, stainless steel, copper alloys, plastics, ceramics, lime and cordage, and other material.

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at present found in large quantities in shipboard construction.

13. To study and develop safety training devices and measuring instruments.
14. To establish techniques for handling large quantities of contaminated materials, as encountered in naval warfare.
15. To study test and develop protective coatings for radiological defense.
16. To develop laboratory and reference standards to simulate actual nuclear attack so as to duplicate these effects on a laboratory scale.
17. To make recommendations to the Navy collaborating with shipyard technicians on features of design doctrine engineering, and other technical practices necessary because of atomic warfare.

Immediate Aims of the Radiological Safety Laboratory.

1. To recommend and provide safety devices and instruments best suited for evaluating the degree of radiation and exposures to such radiation in connection with CROSSROADS target and non-target vessels.
2. To determine safety precautions necessary for working personnel aboard target ships, and make recommendations to the associated Naval activities, Bureau of Ships, and the Bureau of Medicine and Surgery.
3. To make accurate determinations of the degree of radioactivity and the relative ratios of contamination of its components on various materials present in quantity aboard target ships.
4. To effect repairs on present radiation detection devices and develop, and appraise new instruments for use in the field.
5. To further investigation of methods and procedures for decontamination of ships.

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6. The required reduction in civilian personnel from war to peace-time strength has been almost completed. The reduction has been gradual with every attention being given the retention of key personnel in and effort to retain a high degree of efficiency, even though appropriational reductions might be suffered during the revised economical program. The civilian force has been reduced from a war-time total of 16,413 in August 1945, to the present total of 7,096. The military force has diminished from a war-time total of 5,111, during the week ending 6 October, 1945, to 548 during the week ending 28 December, 1946, of which number are included the staff personnel of the San Francisco Group of the Pacific Reserve Fleet.

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MISSION OF THE SHIPYARD

1. The primary mission of the Naval Shipyard is to render service to the Fleet as a component of a Naval Base.
2. The San Francisco Naval Shipyard is an integral unit of the U.S. Naval Base, San Francisco, California, under the command of Captain Philip Lenier, USN. Captain Lenier served as the Commander, Acting, from 1 November, 1946, in relief of Commodore J.W. Fowler, until 30 December, 1946, at which time he assumed the duties as Commander of the Naval Shipyard.
3. The mission of the Shipyard includes:
  - (a) To perform necessary and authorized work in connection with building, repairing, overhauling, docking, altering, converting and outfitting ships and related and special manufacturing work and necessary storage.
  - (b) If directed, to supervise and inspect the performance of similar work, except construction, on naval vessels at private shipyards in the 12th Naval District.
  - (c) To obtain or develop plans and to procure material and to provide facilities essential to the foregoing.
  - (d) To perform research, development and test work as assigned.
  - (e) To conduct training programs as authorized.
  - (f) To prepare and maintain development and logistics plans designed to enable it to accomplish its mission in the event of national emergency.
  - (g) To furnish such other miscellaneous services as may be directed.
  - (h) To accomplish all of the foregoing in an economical manner within the time and funds allotted.

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ORGANIZATION AND ADMINISTRATION

1. The organization and administration of the Naval Shipyard shall be as outlined in Navy Regulations and in Navy Department General Order No. 223, as currently amended.

- (a) Included in the Naval Shipyard organization under the control and authority of the Shipyard Commander and having direct access to the Commander at all times, are the Planning, Production, Public Works, Supply, Fiscal, Medical and Administrative Departments. The Ordnance Officer, Electronics Officer and Aeronautics Officer are specialist members of the staff of the Shipyard Commander in charge of their respective offices, with status comparable to that of a Head of a Department. These three specialist officers also perform duties as deputies of the Planning Officer and the Production Officer. The staff of the Shipyard Commander also includes an Industrial Relations Division and a Management Planning and Review Division.
- (b) Each of the above listed Departments, Offices and Divisions is headed by an officer directly responsible to the Shipyard Commander for the satisfactory performance of the duties assigned to him in these Regulations. In the absence of the officer in charge of any Department, Office, or Division, his duties shall be performed by the senior assistant on duty therein, or should there be no assistant, by such officer as may be detailed by the Shipyard Commander. Officers detailed as assistants in the several Departments, Offices, and Divisions shall perform such duties therein as are directed by the head of the activity in which he serves.

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E.O. 12356, Sec. 3.3  
NND Project 867070

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Organization and Administration continued - - - - -

and such additional duties as the Shipyard Commander may assign.

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NARRATIVE ACCOUNT

1. The closing of the Submarine, and Ships Barracks Dispensaries, and the Medical Facility within the Labor Board necessitated the consolidation of all medical activity into one dispensary. The Dispensary located in Building #210 referred to as the Industrial Dispensary, was selected because of its being centrally located to all points of the Shipyard. It was found that in order to meet the work load demand it would be necessary to alter certain structural components of the building. At the present time the majority of the above alterations have been effected through job orders and work requests to Public Works.

2. The Medical Department is furnishing treatment facilities for 9,076 civilian personnel, 942 Naval Personnel, and an undetermined number of Dependents.

3. The authorized complement of the Medical Department at the Shipyard Dispensary as of 31 August, 1946 was as follows:

(a) Medical Officers - - - - - - - - - - - - - - - - - 5

(b) Hospital Corps Officers - - - - - - - - - - - - - - - 2

(c) Hospital Corpsemen - - - - - - - - - - - - - - - 30

(1) Of the above Hospital Corpsemen 5 were Dental technicians.  
Complement at the time of this report:

(a) Medical Officers - - - - - - - - - - - - - - - - - 5

(b) Hospital Corps Officers - - - - - - - - - - - - - - - 2

(c) Hospital Corpsemen - - - - - - - - - - - - - - - 30

(1) Of the above Hospital Corpsement 10 are serving on duty at the Dental Clinic, and 6 are serving at the Radiological Safety Laboratory.

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ADDITIONAL DATA

1. Examinations are conducted periodically on all employees who are engaged in work where industrial hazards are present such as in lead and radium work and many other types. No evidence of chronic industrial disease was revealed through this procedure during the year 1946. There were several cases of phenol type burns reported to the Shipyard Dispensary. An investigation revealed these burns to be caused by "Kosul", a type of paint used as a preservative. Further investigation proved that when used according to specifications and under proper conditions, "Kosul" produced no harmful effects.
2. One event of note which occurred in 1946 was an explosion aboard the U.S.S. Antietam, occasioned by the accumulation of gaseous fumes. Thirty-five persons, civilian and naval sustained injuries, two of which proved fatal to a service man and to a civilian. The fact that additional fatalities were prevented is attributed to the immediate operation of the Shipyard Disaster Plan whereby all Medical Department personnel, supplies and equipment were made available. Civilian patients were administered necessary emergency treatment and transferred to the San Francisco Emergency Hospital for further transfer to the U.S. Government Marine Hospital. Naval personnel were administered emergency treatment and transferred to the Naval Hospital, Treasure Island, California.
3. A 35mm Photofluorographic Unit is installed in the Shipyard Dispensary on which an average of five hundred X-Ray examinations per week are made. This apparently large number is occasioned by the fact that examinations are being made for activities located within the San Francisco Bay area in emergencies.
4. Specimens of water, milk, and ice are collected weekly from various points throughout the Shipyard for Laboratory examination. To date specimens have been negative for organisms of the Coli-Aerogenes group. The Ship-

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yard Laboratory performs examinations on specimens of water, milk, and ice submitted by the San Francisco Group, Pacific Reserve Fleet, and other Naval Activities not having adequate laboratory facilities. Full reports are returned on all specimens submitted. Fresh water tanks aboard ships docked at the Shipyard, when opened, are chlorinated and bacteriological tests made prior to again being put in use. Sewage is untreated, and disposal is by dilution into the San Francisco Bay that partially surrounds the Shipyard. The sewage disposal outfalls, reported in the fourth quarter of 1945 Sanitary Report as being above the low tide water level, are now satisfactorily below the low tide water level.

5. Continuous trapping is proving a great factor in maintaining the rat population of the Shipyard at a minimum. Rat poisons, such as 1080, have been used in places that could be closed and locked against intrusion by domestic animals, and have been found to be very effective. D.D.T. Spray is being used, and found effective against cockroaches, fleas, and ants. Weekly spraying with D.D.T. Spray has been instrumental in preventing widespread infestation by the above insects.

6. Garbage is being contracted out.

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CONCLUSION

1. In the main the most effective portion of the local medical program is the extensive and continuous sanitation program waged to maintain at the highest possible level the sanitary conditions of this Naval Shipyard. This presents many problems due to the number of ships coming for overhaul with the attendant need for proper disposal of refuse, and also the maintenance of proper sanitary conditions in the drydocks and associated heads.
2. A factor regarded as being largely responsible for the low number of man work days lost by civilians during the past year is the alertness displayed by members of the Shipyard Safety Department. Many serious accidents which might have happened have been prevented because of the diligence and attention expressed by this group of employees.
3. It is considered that a completely equipped and well manned clinical laboratory is of utmost worth at a Naval Shipyard. The examinations of blood required on all lead and radium workers alone require competent technicians, otherwise, tests are likely to be very misleading and actually dangerous.
4. The Dental activities at this station have been separated from the Medical Department in accordance with instructions set forth in AllNav 343-46 pursuant to Public Law 284 approved 28 December, 1945. The complement of Hospital Corpamen on duty at the Dental Clinic is included in that of the Medical Department of the Shipyard. In emergencies the Dental Corpamen are available for general duty. It is felt that the Dental Department should be housed with the Medical Department in order to effect closer cooperation of the two related activities.

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The preemployment physical examinations are now conducted at the Shipyard Dispensary; the examining facilities having been removed from their former location at the Labor Board. Civilian applicants are escorted in groups from the Labor Board to the Shipyard Dispensary, and upon completion of their physical examinations they return thereto.

Routine transportation is furnished by the Shipyard Dispensary for Naval Personnel ambulatory cases from the Shipyard and visiting ships to the Naval Hospital, Treasure Island, California, and the Naval Hospital, Oakland, California, for consultations and hospitalization. Ambulance service is immediately available twenty-four hours a day in the event of emergency.

Civilian personnel suffering the effects of industrial disability are, likewise, furnished transportation by the Shipyard Dispensary to their respective homes, or the U.S. Government Marine Hospital, San Francisco, California, as the case may be. No transportation is extended to visiting ships for patients except through recommendation to the Shipyard Transportation Department from the Medical Officer, Shipyard Dispensary.