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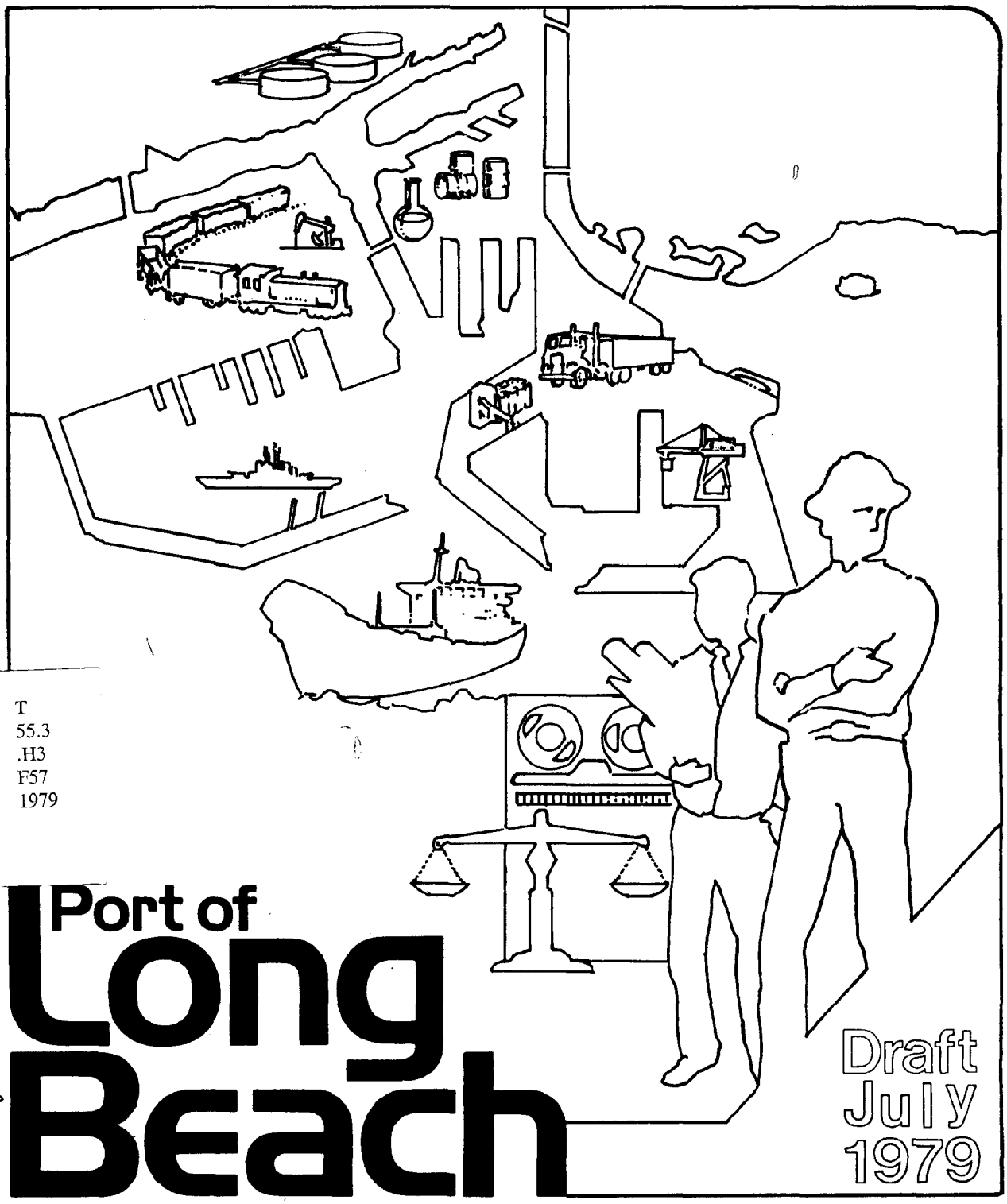
W.P. (CIP)

Risk Management Phase 1 Study

Hazardous Material Inventory



California Coastal Commission

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Port of Long Beach

Draft
July
1979

AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

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WP (CZIP)

PHASE I

RISK MANAGEMENT PLAN STUDY

DRAFT

First Increment

Hazardous Material Inventory

Progress Report

Prepared as a Supplement to the Port Master Plan certified by the California Coastal Commission, and in conjunction with a grant to the Office of Coastal Zone Management, National Oceanic and Atmospheric Administration, under the provisions of the Federal Coastal Zone Management Act of 1972, as amended.

July, 1979

PORT OF LONG BEACH, CALIFORNIA

California Coastal Commission
TS553.H3 H57 1979

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EXECUTIVE OUTLINE

EXECUTIVE OUTLINE

I. MANDATES FOR PORT MASTER PLAN AND RISK MANAGEMENT PLAN

A. Coastal Act Findings and Policies on Safety and Protection. See "Mandates" text on Coastal Act Findings.

B. Coastal Commission's (CCC) Conditions of Certification of Port Master Plan:

"The Commission shall withhold certification of all areas in the Port where petroleum, petrochemicals or other similar bulk liquid cargoes of hazardous nature are presently handled or are proposed to occur until such time as the Risk Management Plan (RMP) is completed and adopted by the Commission as an amendment to the Certified Port of Long Beach Master Plan."

C. Coastal Energy Impact Program (CEIP) Sponsorship of Hazardous Material Inventory (HMI) on a 20/80 percent cost sharing basis (Port, $6,475/CEIP, $25,900).

II. UPDATE

A.	Initial CEIP Application	10/12/77
B.	RMP Program Approval by CCC, Subject to Cond's	2/28/78
C.	Final Port Master Plan Distributed	6/6/78
D.	CEIP Funding of RMP Approved	8/10/78
E.	CCC Certification of Port Master Plan - Subjected to Cond's	10/17/78
F.	Port Staff Briefing on Risk Mgmt Study & HMI	11/28/78
G.	CCC RFP on RMP	3/4/79
H.	Port Testimony on H.R. 2994 Port Safety Bill	4/27/79
I.	HMI Task Force Briefing	5/3/79
J.	CCC Risk Mgmt. Briefing	5/18/79

III. PROGRAM

A. Overall Program Goals

- Address HM transport and storage in the Port.
- Minimize adverse impacts of HM to public, prop., & env.
- Buffer and control HM activities in the Port.
- Improve safety in the Port.
- Inform the public of Port efforts on Risk Mgmt.
- Encourage Interagency cooperation on Risk Mgmt.
- Promote continued efforts toward reasonable safety.

B. Three Phase Program Overview

1. <u>Phase I - Information</u>

   Data collection, evaluation and consolidation of information on Hazardous Materials and Safety Measures in the Port.

2. <u>Phase II - Planning</u>

   Development of Goals, Objectives, Criteria, Priorities, Standards and Strategies for Risk Management in the Port.

3. <u>Phase III - Legislation and Administration</u>

   Assessment of existing and development of proposed legislative and/or administrative requirements or guidelines for Risk Management in the Port.

C. Phase I - Information - Incrementation Outline

1. First Increment - Hazardous Material Inventory

   Identification, Measurement and Documentation of Existing and Potential hazards in the Port of Long Beach.

2. Second Increment - Public and Agency Participation

   Preparation of interim report, discussions with Coastal Commission Staff and Consultants, review by other Agencies (Coast Guard, Fire Department, etc...), public workshops, hearings, tours.

3. Third Increment - Feedback and Final Phase I Report

   Revisions, extensions, incorporation of comments and preparation and distribution of final report for Phase I.

IV. PRODUCTS

A. Hazardous Material Inventory Overview

1. HMI Objectives

   To identify, measure, and document existing and potential hazards in the Port of Long Beach.

   To identify any problems or discrepencies which exist between HM activities and current safety measures.

   To report on the above findings and present conclusions and recommendations.

2. Hazardous Material Inventory Study Product Outline

   a. Waterfront
   b. Support/Logistics Facilities
   c. Transportation Modes
   d. Existing Contingencies

B. Terminal Water Approach Inventory

1. Wind Conditions

2. Hydrography

3. Water Depths

4. Navigational Aids

5. Vessel Safety

C. Transportation/Storage Inventory

1. Transportation Access,

   a. Railroad - Access, Location and Extent of rail system.

   b. Roadway Access - Layout, traffic density, capacity.

   c. Pipeline - Bunker lines, crude and product pipelines, operations, locations number, size, capacity, distance to storage.

2. Storage - Operator, location type, commodity, number, capacity.

D. Vessel Inventory

1. Vessel Visits - Distribution by type of hazardous cargo and Harbor District.

2. Berths handling hazardous materials.

3. Berth throughput, inventory by time at berth, bunker, destination, vessels, cargo type.

4. Hazardous commodity inventory by commodity, cargo type, hazard class, destination, and Berth.

E. Waterfront Facilities Survey

1. Facility inventory.

   a. Existing petroleum facilities, inventory consisting of wharf characteristics, terminal operations, summary, etc...

b. Existing liquid bulk (chemicals/oils) facilities.

c. Berth layout, showing terminal and open storage designations.

d. U.S. Coast Guard waterfront facilities survey by Berth.

e. Fire system layout by Berth.

2. Terminal Maintenance Program (Public & Private)

a. Preventive Maintenance Program.

b. Normal Maintenance.

c. Fire Systems Maintenance.

d. Procedures in Emergency for Maintenance Division Personnel.

e. Fire System Maintenance Responsibilities, Lessee, Responsibilities, Location.

3. Terminal Safety Provisions (Public & Private)

a. Hazardous Material Handling Safety Meeting on plans and measures used by Stevedores in the Port.

b. Port Warden Standard Operating Procedure.

c. Hazardous Materials Storage Guide.

d. Hazardous Material Handling Packet.

e. Checklist for the Safe Handling of Hazardous Materials.

F. Property Status Inventory

1. Renter status - Renter, Location and Berth, Term and Type of Lease, Insurance Status.

2. Pipeline Permits - Operator, Permit Number, Description, Harbor Documents.

G. Inter-Agency Coordination

1. Other agency responsibilities in the Port.

2. City Risk Management Authority.

a. Public Safety Element

b. Long Beach Emergency Plan

c. Risk Management Activities of City Agencies

3. San Pedro Bay Navigational Operating Procedures/ Regulations and Practices

4. Navy Base Homeporting.

MANDATES
AND
UPDATE

CHAPTER 1
MANDATES AND UPDATE

The Coastal Act of 1976 established among its primary findings and declarations, the need "to promote public safety, health, and welfare, and to protect public and private property, wildlife, marine fisheries, and other ocean resources, and the natural environment" (Section 30001(c)). It also declared that to achieve maximum local response, it is necessary to rely heavily on local government and local land use planning procedures and enforcement (Section 30003(a)).

Policies on safety and protection of particular significance to ports were presented in Chapter 8 of the Coastal Act. Relevant policies mandated by the Act in this Chapter include the following: minimizing the volume of oil spilled and the risks of vessel collisions, and providing effective oil spill containment and recovery systems (Section 30707); and minimizing the substantial adverse environmental impacts and potential vessel traffic conflicts due to development (Section 30708).

The Coastal Act also amended Section 31342.5 of the Water Code with respect to certain safety and protection measures. Toxic and hard-to-treat substances were required to be pretreated at the source to facilitate effective and treatment that was economically feasible and not otherwise availble at municipal treatment plants.

The Port Master Plan was certified by the Coastal Commission on October 17, 1978 subject to a set of conditions which included a mandate relative to risk management. Conditon #1 stipulated that the Commission withhold certification of "all areas within the Port of Long Beach jurisdiction where petroleum, petrochemicals or other similar bulk liquid cargoes of a hazardous nature are presently handled or are proposed to occur until such time as the Risk Management Plan is completed and adopted by the Commission as an amendment to the Certified Port of Long Beach Master Plan".

The Risk Management study was undertaken under a Coastal Energy Impact Program (CEIP) grant administered in California by the Coastal Commission. CEIP was created under the provisions of the Federal Coastal Zone Management Act of 1972 in large part to mitigate the impacts of energy activities and developments upon coastal areas. The Port of Long Beach first applied for a grant on October 12, 1977.

On February 28, 1978, the Coastal Commission approved the Risk Management Study grant subject to certain conditions. One condition included joint development of the RMP by the Port of Long Beach and the Port of Los Angeles. Other conditions included a 20% in-kind or cash local match to the CEIP grant, pursuit of alternative sources of funding, and use, to the extent feasible, of consultants with expertise in the field of Risk Management. The condition involving the two Ports was modified as follows: "The Port of Long Beach shall provide to the Port of Los Angeles information and experience acquired in the development of their Risk Management Plan."

On June 6, 1978, the Final Port Master Plan was distributed for general review. Appendix A of this document contained a general review of the proposed risk management program.

Due to budget constraints on the CEIP program in 1978, the phases of the Risk Management Study had to be subdivided into increments to permit adequate funding within the specified time frame. Negotiations on the scope and cost of the program continued until September 10, 1978 when funding for the first increment of the program "the Hazardous Material Inventory" was approved by the Coastal Commission. A grant was approved for $25,834 in CEIP funds on the basis that the Port would contribute $6,459 based on an 20/80 percent cost sharing ratio, (ie. 20% Port/80% CEIP). The Total funding for the increment was thus $32,293.

The Port Master Plan was certified on October 17, 1978 along with the conditions described in the discussion of "Mandates". This action made the RMP a required supplement to the Port Master Plan and added impetus to the program.

Between October 1978 and the present a series of activities have occurred in preparation for the Hazardous Material Inventory. The Port's executive staff has been briefed on the program, an interdisciplinary and interdivisional study task force was established, a consultant was selected by the Coastal Commission to monitor risk management activities and the Commission Staff has been briefed on the Port's program status. In addition, the Port has presented testimony in support of H.R. 2994 to the Port Safety Bill which was recently debated by Congress in Washington.

PROGRAM

CHAPTER 2
PROGRAM

Section 1
SCOPE AND DEFINITION

The Risk Management Plan (RMP) is intended as an element of the Port Master Plan to facilitate decision makers in management of Port development consistent with the intent of the Coastal Act. The Harbor Department is pursuing the risk management plan through a grant from the Coastal Energy Impact Program (CEIP) under the coordination of the California Coastal Commission. The purpose of this program is to develop a policy and program instrument to facilitate the effective control and management of specified potential hazards in the Port and vicinity.

The RMP will establish a set of goals and objectives with respect to significant hazards, addressing the needs for information, planning, management and enforcement. Potential hazards will be identified, assessed in terms of past experience and likelihood of occurrence, and evaluated in terms of legal liability where applicable. The current status of Port resources will be addressed in terms of their qualitative and quantitative characteristics to establish an index for future changes of characteristics.

The definition of risk management can be derived in a number of ways depending on the source and the application. The general denotative definition of risk management may be derived from Webster's Dictionary by combining applicable definitions of the concepts of "risk" and "management". "Risk" is defined as a dangerous element or factor; a chance of loss or the perils to the subject matter of an insurance contract; the degree of probability of such loss; a person or thing that is a specified hazard to an insurer. "Management" is defined as the art of managing, controlling or direction; judicious uses of means to accomplish an end. Thus, "risk management" may be denotatively defined as the judicious uses of means for managing, controlling or directing the probability of loss due to specified hazards.

The term "risk management" has been used commonly in the insurance field to connote analysis, evaluation, abatement, transfer of liabilities and accounting activities for the purpose of determining sources of risk, evaluating the impacts on individuals and organizations, and establishing adequate compensation for the loss of tangible and intangible assets. Due to the extensive use of the term in insurance, the use of the term in its broader denotative context is easily misunderstood.

The definition of risk management sought for the purpose of this text, however, is neither so general as to encompass management of any potential hazard, as inferred by the denotative definition above, nor so specific as to concern itself exclusively with the

inferred by the connotative definition above. Rather, an "operational" definition is required which addresses the particular concerns of the proposed Port Master Plan. This definition of risk management is as follows:

> The effective management, control and direction of specified potential hazards with respect to existing and proposed development in the Port and vicinity with the aim of preventing and minimizing potential loss, injury or damage to persons, property, natural or economic resources. These specified hazards include but are not restricted to the following: hazardous substances, especially crude oil, gas, petroleum or other substances, toxicant, vessel hazards; and waste hazards.

The latter definition addresses the principal concerns for safety expressed in the Coastal Act.

Section 2
GOALS AND OBJECTIVES

The Coastal Act of 1976 is a primary source for goals, as are the declared policies of the City and the Port of Long Beach. Public concerns as expressed at various public hearings, at the Local Coastal Planning Committee meetings and at Port Master Plan workshops also have had an influence on the evolution of these goals. Goals herein addressed are not only singular achievements as is implied by the term "end", rather, risk management goals are viewed as a series of end states linked into an ongoing process. This endeaver necessitates constant vigilance and preparedness.

The process of goal formulation is viewed as dynamic and flexible as is the process of realizing those goals. Therefore, the goals which are presented here are not to be considered final, immutable or all inclusive. Rather they must be considered subject to adaptation and change as the perceptions of problems and needs for risk management evolve, and as experience, increased knowledge, and "feedback" are obtained to better define the means and the ends upon which goal formulation is to be based. Alteration, updating, deletion or additions of goals in response to changing circumstances within the Port must be considered as one of the primary goals of risk management, for without such flexibility how is it possible to continue to be prepared for new conditions or potential hazards which may emerge in the future.

Goals

The following non-exhaustive set of goals address the general aims for safety, protection and reduction of loss from specified real and potential hazards in and around the Port.

Information:

1. To promote, preserve and enhance public safety and welfare, and to protect public and private property, wildlife, marine fisheries, other ocean resources, and the natural environment generally from potential development hazards.

2. To inform public and private individuals, organizations and agencies of potential hazards, contingency plans, management procedures, and enforcement standards and measures with respect to risk management in the Port.

3. To encourge participation and cooperation between the Port and other agencies, organizations and individuals in the identification of real and potential hazards, and in the maintenance and preservation of safety in and around the Port.

4. To promote continued research, planning and development directed toward reducing the risk of specified potential hazards resulting from or impacting existing and proposed developments in the Port.

Planning:

5. To provide guidance for and coordination of staff organization, emergency planning, disaster functions, and response operations for the safety and protection of persons, property and natural resources in the event of a disaster.

6. To monitor Port uses and resources subject to loss due to specified potential hazards, and to maintain reasonably current inventories of such uses and resources, including both quantitative descriptive values.

7. To draft prescriptive and performance criteria and standards as required for evaluating and reducing the risks of loss associated with Port developments.

8. To encourage the adoption of new administrative guidelines and legislative standards as required to improve risk management in the Port.

Management:

9. To manage Port uses and resources in a manner which will encourage and insure the reduction of, protection from and prevention of social, environmental, technological and economic losses due to specified potential hazards.

10. To regulate land uses in the Port which present significant potential hazards in order to attain a safer and healthier environment, while maintaining a reasonable level of economic progress and development consistent with international, national, state and local interests in the Port.

11. To apply relevant methods, techniques and tools of planning and management for the purpose of minimizing the risks of loss due to potentially hazardous Port operations and developments.

Enforcement:

12. To enforce and facilitate other pertinent agencies in enforcing existing codes and standards regulating the prevention, containment, reduction and elimination of real and potential hazards in and around the Port.

13. To provide continued surveillance and open communciation channels in order to facilitate early identification and reporting on hazardous and dangerous conditions in the Harbor District.

14. To provide direct liaisons with other federal, state and local law and security enforcement agencies.

15. To collect and log information on hazardous cargoes, operations and conditions and to determine the responsibility and value for damages.

Objectives

The four categories of goals enumerated above on information, planning, management and enforcement, each will require a wide range of secondary efforts. For the purpose of this discussion these secondary efforts will be referred to as "objectives" which are necessary to achieve the more comprehensive goals. The following is a non-exhaustive list of objectives associated with risk management in the Port:

Information:

1. To provide readily available information concerning the reduction and prevention of loss due to potential hazards in the Port.

2. To promote the necessity for immediate notification of hazardous occurrences to the Harbor Department and other pertinent agencies.

3. To facilitate prompt response to and containment of hazardous occurences in the Harbor District.

4. To define the authorities, responsibilities, duties and interfaces of persons, organizations or agencies with regard to potential hazards and hazardous occurrences so as to avoid redundancy of efforts for regulation and control, and minimize potential conflicts and confusion which may be generated during an emergency.

5. To coordinate and cooperate with other political jurisdictions in implementing safety and disaster programs.

6. To promote the redevelopment of areas which may present safety problems.

7. To continue identifying existing or proposed uses or activities that may pose safety hazards.

8. To continue to inform the public of potential safety hazards and what to do in times of emergencies.

9. To provide available information concerning the prevention of oil, gas and other hazardous liquid and solid waste spills into the waters of Long Beach Harbor from any cause or source.

10. To encourage immediate notification of spillage to Harbor Department authorities and other pertinent agencies.

11. To provide available information concerning fire prevention on vessels, docks, and in other Port facilities and operations.

12. To provide available information on explosive, radioactive and otherwise hazardous materials handled in the Port area.

13. To provide information on potential traffic hazards and available preventive measures with regard to vessels, trains, and vehicles.

14. To inform Port employees, operators, and relevant segments of the public of existing emergency plans and measures to be taken in case of a major disaster.

15. To keep abreast of the state of technology to minimizing disruption to wildlife, marine life and water quality.

16. To provide available information on oil and gas developments in the Harbor, and measures being utilized at present to prevent various hazards due to such development, including oil spills, and water pollution.

17. To provide available information on potential hazards posed by petroleum and petrochemical facilities, power plants and other major industries in the Port and measures taken to reduce and to minimize these hazards.

Planning

18. To establish safety guidelines to evaluate specified potential safety hazards and mitigate existing problems which are identified.

19. To provide development controls, where feasible, to isolate areas with significant land use hazards from other existing and developed portions of the Port and the City.

20. To critically evaluate proposed developments which may pose safety hazards.

21. To eliminate undesirable elements which may be detrimental to the preservation and improvement of the unique qualities of the Port and the City.

22. To utilize open space planning as one strategy for protecting the public from natural or artificial disasters.

23. To apply safety considerations to planning as criteria for encouraging and enhancing desired land use patterns.

24. To achieve greater safety and protection from hazards through deliberate physical planning.

25. To plan transportation systems, utilities, industries, and similar uses in the Port in a manner consistent with safety and protection of people, property, and the natural environment.

26. To encourage development which would be less vulnerable to natural disasters.

27. To encourage development which facilitates prevention and emergency response activities.

28. To establish notification procedures which provide for optimum use of time between detection and containment of oil, gas and other hazardous discharges.

29. To identify and establish priorities for critical water use areas for purposes of reporting and response to hazardous spills.

30. To prepare lists of names, telephone numbers and addresses of persons, organizations and agencies to be notified in cases of various kinds of emergencies.

31. To establish reliable communication within the Port and between the Port and other operatives relative to emergency response, especially where existing lines of communication are not adequate.

32. To establish procedures for combining and coordinating assistance efforts as required with local, regional, state and federal authorities during a major disaster which is beyond the Port's response capabilities.

33. To identify the resource capabilities for various contingencies in the Port and make them immediately known to relevant authorities including:

    a. An inventory of equipment, materials and supplies available locally and regionally.

    b. Assessment of facilities required to contain various potential hazards, especially oil spills.

34. To provide a set of procedures for response by the Harbor Department after discovery and notification of specified potential hazards.

35. To investigate the possibility of establishing open buffer zones around certain industrial uses, and between industrial and other uses in order to minimize potential safety hazards.

36. To encourage the development of new industries which reduce or offset gaseous emissions in the areas within and adjacent to the Port and to encourage existing industries to meet national, state and local ambient air quality standards.

37. To buffer hazardous activities, such as petroleum storage, production and distribution facilities, from other more sensitive land uses, where feasible.

38. To plan for consolidation of new or expanded oil and gas facilities within the Port to maximum extent environmentally, functionally, and economically feasible and legally permissible.

39. To plan drilling operations on platforms or islands so as to minimize the impact on water quality, marine life, visual quality and other environmental risks.

40. To site platforms, land fills, or islands so as to avoid any substantial hazards to vessel traffic from the facility or related operations, and to consult with the Coast Guard and Army Corps of Engineers on such sitings.

41. To establish a basis for redevelopment of portions of the port for the purpose of correcting land use blight, where necessary to promote public health, safety, and welfare, through the combined efforts of private enterprise and local government agencies.

42. To pursue programs for the safe, feasible and expeditious disposal of solid waste, including recycling of portions thereof.

43. To determine the feasibility of recycling waste water for fire control and other operational purposes.

44. To plan for safe and adequate access of fire-fighting and rescue vehicles with at least two directions of ingress and egress to structures and sites within the Port.

45. To limit the growth of hazardous types of industries.

46. To utilize fire safety factors as major criteria in Port development.

47. To buffer urban uses from routes designated for transportation of dangerous fluids, chemicals, explosives, or other hazardous materials.

48. To plan, design and construct new or expanded tanker terminals to minimize oil spilled and risks of vessel collision, to provide ready access to effective oil spill containment and recovery equipment, and to provide onshore deballasting facilities, where feasible.

49. To evaluate the feasibility of installing emergency phones along portions of Long Beach Freeway and at terminals within the Harbor District.

50. To determine critical routes of evacuation, and shelter throughout the Port area in case of major disaster.

51. To augment the existing system of communication for decision makers in case of emergency, as may be determined to be necessary by a feasibility study.

52. To involve Port Security, the Port Safety Officer, and the Police Department in project review at the planning stage to reduce and prevent crime in the Port.

53. To incorporate various tools and criteria for crime prevention in Port planning, including, but not limited to, improved street lighting, pedestrian path illumination, demolition of hazardous, condemned, and abandoned structures, promotion of high activity levels in centralized public areas, control of parking areas, especially night parking, and separation of vehicular, pedestrian and bicycle routes, where feasible.

Management

54. To use safety precautions as one means of reducing and preventing blight and deterioration.

55. To protect existing land uses from the intrusion of safety hazards.

56. To reduce public exposure to safety hazards.

57. To reduce the potential adverse economic, environmental and social loss which could result from a major disaster.

58. To assure continued economic stability and growth while minimizing potential safety hazards.

59. To protect people from possible personal loss resulting from disaster events.

60. To assure the preservation of public and private property in the Port.

61. To continue to provide the maximum feasible level of public safety protection services.

62. To continue coordinating employee safety measures throughout the Port.

63. To adopt improved methods of insuring safety and security in the Port.

64. To update the Port Emergency Plan.

65. To incorporate new technology for public safety in the Port.

66. To maintain reliable communication within the Port and between the Port and other operatives for purposes of security and emergency response.

67. To effectively utilize natural or man-made features such as landscaping for increased public protection from potential hazards.

68. To maintain an integrated and effective organization component to combat and minimize the effects of various emergency occurrences, such as massive oil spills in and about the Port.

69. To encourage the understanding of powerlines where feasible to reduce the risks of powerlines falling from suspended locations in case of an earthquake.

70. To encourage and require developments or transportation modes which handle oil, gas, petroleum products, or other hazardous substances to provide protection in terms of effective containment and cleanup facilities and procedures for accidental or operational spills.

71. To periodically reassess the fire station layout and fire boat requirements in the Port with respect to development and operations and to determine whether new or relocated facilities or equipment may be required.

72. To provide personnel and equipment as necessary to maintain security and crime prevention operations within the Port with the cooperation of other pertinent agencies such as the Fire, Police, Emergency Services, and Public Service Departments of the City, the Highway Patrol, and the Coast Guard.

73. To pursue sources of support and fundings for various risk management activities and programs.

Enforcement

74. To obtain vital services, supplies, equipment and such other properties found lacking and needed for the protection of the life and property of the people who visit or utilize the Port, and to insure that adequate funding can be obtained to cover the value of such protective devices.

75. To facilitate the requisition and enlistment into emergency services of any Port or City officer or employee, and to command the aid of as many citizens as necessary, consistent with the privileges, benefits, and immunities as provided by local, state and federal laws for such duties.

76. To assure continuity of safety measures for the protection of life and property.

77. To assure safe access to all non-restricted areas of the Port for the general public, including bicycle access from the City of Long Beach, where feasible.

78. To enforce and facilitate enforcement of City and Port regulations.

79. To coordinate enforcement efforts with other pertinent agencies as required.

80. To provide assistance in traffic control and crime prevention.

81. To enforce and facilitate the enforcement of controls and ordinances regulating waste discharge from vessels in the Harbor area.

82. To inspect construction sites and enforce codes and standards with regard to construction hazards.

83. To inspect new and expanded projects in the Port in order to enforce, where necessary, safety regulations governing structural stability, fire access, occupational and operational hazards.

84. To require periodic training and mobilization exercises for personnel and equipment involved in the Emergency Organization of the Port.

85. To assure that penalties and fines for pertinent violations are assessed as required by codes and regulations governing such actions.

86. To facilitate the conformance with and enforcement of all applicable air quality standards for new or expanded Port facilities, especially facilities for the handling and storage of petroleum and petrochemical products.

87. To minimize the need for waste water discharges and entrainment in Port facilities.

88. To inspect vessels and enforce their compliance with codes, regulations and standards governing safety, especially traffic safety, handling of hazardous cargoes, and spills of various materials.

89. To supervise the inspection of loss and damage to life and property, the determination of responsibilities and liabilities for these, the assessment of value for purposes of insurance and compensation, and the collection and/or dispersal of funds to cover equitable compensation.

Section 3
PHASES

The Risk Management Study is anticipated to be pursued over several years with the aim of drafting and implementing a plan for risk management in the Port of Long Beach. The development of the plan will occur in essentially three phases: Information, Planning and Administration.

The product of the Information phase will be a report or series of reports identifying risks in the Port including an inventory and assessemnt of hazards; current standards and regulations on control of hazards and authorities and jurisdictions over hazards in the Port.

The product of the Planning Phase will be one or more reports representing the Risk Management Plan, including a framework of criteria for hazard evaluation, establishing risk priorities, and defining strategies for development which will minimize risks from hazards.

The product of the Administration phase will be one or more drafts of proposed codes, standards, guidelines and procedures for implementation of the Risk Management Plan through legislation, administration, and enforcement consistent with the policies of the Coastal Act.

Section 4
PHASE I INCREMENTS

Phase I has been subdivided into three increments which focus upon particular activities or concerns and are geared to the time and budget constraints dictated by the CEIP grant.

The first increment is a hazardous material inventory (HMI) concerned with the identification, measurement and documentation of existing and potential hazards in the Port.

The second increment involves public and agency participation (PAP) and is concerned with review and discussion of concerns and inventory data with Coastal Commission Staff and consultants, other agencies (i.e. Coast Guard, Fire Department, etc) and the public through meetings, workshops, hearings and tours.

The third increment will incorporate feedback into the final Phase I report. This increment will include revisions, extensions, and comments, and distribution of the final Phase I report.

PRODUCTS

CHAPTER 3
PRODUCTS

Section 1
HAZARDOUS MATERIAL INVENTORY OVERVIEW

The focus of the following report will be an inventory of hazardous materials in the Port. The objectives of the inventory are:

- To identify, measure, and document existing and potential hazards in the Port of Long Beach.

- To report on the above findings and present conclusions and recommendations.

The inventory treats four categories of Port facilities and plans and a variety of elements of each, including: waterfront facilities, supporting logistics facilities, transportation modes, and existing contingency plans. In the course of preparing for the inventory it became apparent that particular categories and elements of the study would require certain fields of expertise available among the Port Staff. Subsequently, a task force was organized which was composed of members of pertinent divisions to conduct the inventory. The original categories agreed to by the Port and the Coastal Commission Staff were not sufficiently differentiated to facilitate the appropriate division of labor. A new set of categories of general task assignments emerged which embodied the original work program and were more suitable to the tasks.

The general task assignments included:

- Terminal/water approach

- Transportation/storage Inventory

- Vessel Inventory

- Waterfront Facility Inventory

- Property Status Inventory

- Interagency Coordination

- Terminal Maintenance Program

- Terminal Safety Provisions

The following text has been subdivided according to the foregoing categories. Each category contains compiled or tabulated information related to its principal subject and is accompanied by a brief explanation of the scope and nature of that information for purposes of clarification. In the light of extensive data which

exists on the foregoing categories it has been necessary to qualify and summarize in certain instances in the interest of completing the survey within a reasonable time frame. Greater emphasis is thus placed in this survey on identifying and illustrating hazards and safety provisions than on precise quantification.

A set of broad categories of cargo types has been indentified in order to facilitate the preparation of the hazardous material inventory in a manageable and systematic manner and to reduce confusion over the large number of commodities handled in the Port. These are as follows:

- Petroleum and Bunkers
- Chemicals
- Dry Bulk
- Break Bulk
- Conatiners
- Automobiles
- Defense

These categories represent bulk uses in the Port which require special facilities, equipment, locations or operations subject to permits, leases or other enablements issued by the Harbor Department. The distribution of these uses in the Port is illustrated in Figure 1. The categories will be referred to throughout the subsequent text as appropriate to each assignment area.

Tabulated data has been updated through fiscal 1977-78 for the most part. However in some cases available data predated this period by one year. This data is adequate for illustration. It is intended that the data shall be updated on a periodic basis when the Risk Management Plan is implemented, and as the need arises.

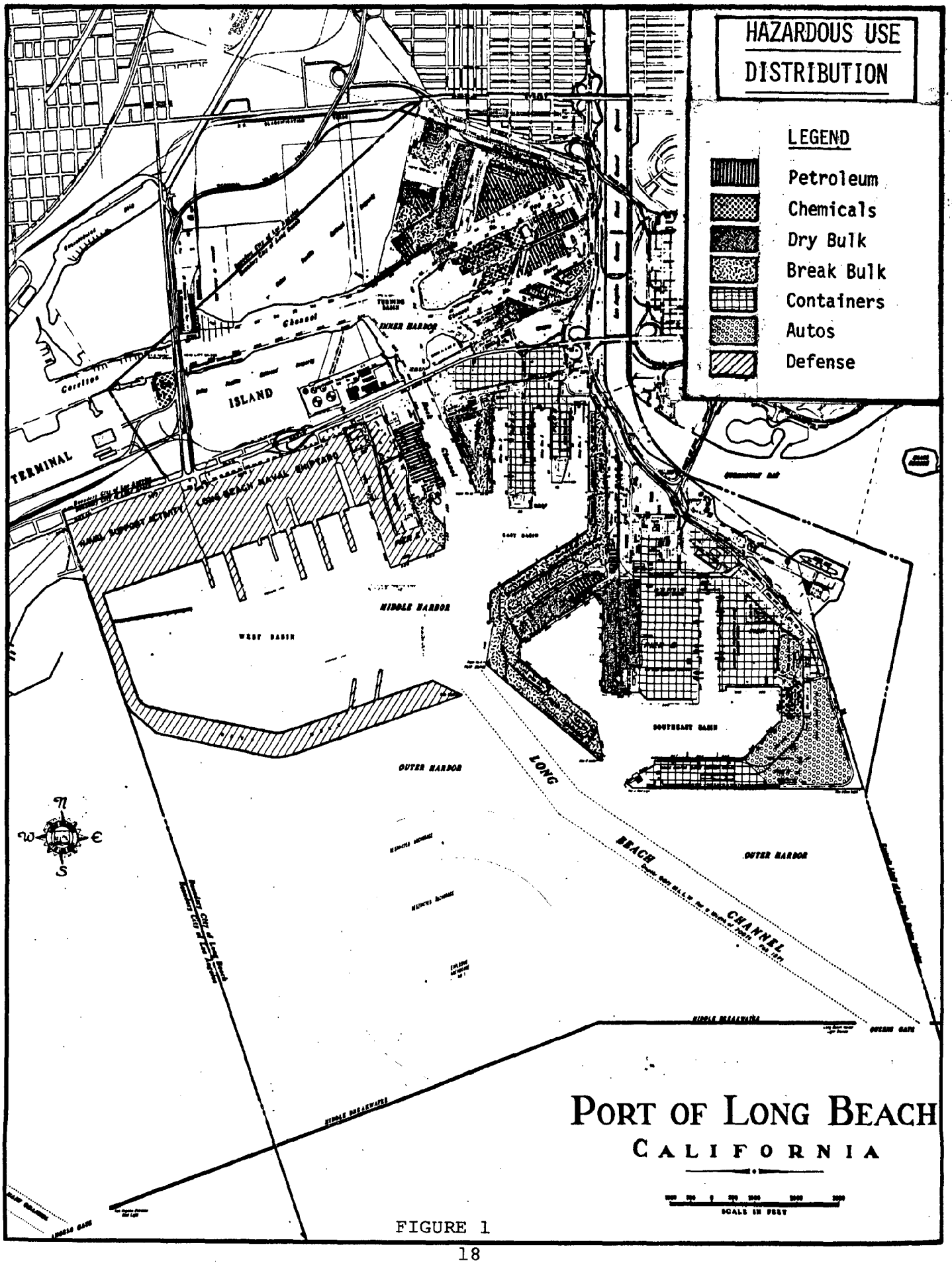

HAZARDOUS USE
DISTRIBUTION
LEGEND
Petroleum
Chemicals
Dry Bulk
Break Bulk
Containers
Autos
Defense
ISLAND
TERMINAL
Channel
INNER HARBOR
MIDDLE HARBOR
WEST BASIN
OUTER HARBOR
LONG BEACH CHANNEL
OUTER HARBOR
PORT OF LONG BEACH
CALIFORNIA
SCALE IN FEET

FIGURE 1

Section 2
TERMINAL WATER APPROACH

Vessel traffic entering and leaving the Port may encounter potential hazards from natural or manmade sources. Among the principle recurring natural phenomena which must be accounted for are weather and tidal conditions.

Wind

Prevailing winds at Long Beach Harbor are from the west and southwest as shown in Figure 2. Strong winds from the northeast called "Santa Anas" usually occur in the fall or early winter and occasionally bring warm weather from the high desert. The occasional strong winds from the south are of significance to the harbor because of the strong wave action such storms can generate. The area is generally quite calm, with an average annual wind speed of 9.8 kilometers per hour (6.1 mph). This condition enhances a balmy climate and peaceful harbor, but poorly disperses the air contaminants generated in the South Coast Air Basin.

Differential heating and cooling of the land and ocean causes breezes which blow inland during the day and seaward at night. Extreme conditions, however, are rare.

Hydrography

Normally there are two high and two low tides in a 25-hour period in the Port of Long Beach. On certain days of each month, however, diurnal tides are observed (only one high and one low tide per day). The highest tide observed since 1924 was 2.3 meters (7.54 feet) above mean low low water (MLLW), while the lowest tide was 0.9 meters (2.56 feet) below MLLW. The mean high water is 1.4 meters (4.71 feet) above MLLW, while the mean low water is 0.3 meters (0.95 feet) above MLLW.

The U.S. Army Corps of Engineers Waterways Experiment Station in Vicksburg, Mississippi maintains a physical model of the harbor complex for purposes of testing tidal, wave, circulation and flushing activities with respect to new and/or existing developments in the Port. Detailed studies produced from this model and other mathematical models are made available to the Port by the Corps.

Waves from the west do not have a major effect on the Port because Point Fermin provides protection. Similarly, Santa Catalina Island and, to a lesser extent, San Clemente Island provide some protection from waves originating in the southerly to westerly directions. Finally, the breakwater outside the present Port facilities attentuates waves that do approach. The breakwater is generally effective for short period waves, but relatively uneffective for long period waves.

Floods

There is little flooding danger to the Port. Studies indicate that the Port would not be subject to flooding from a hundred year storm. Port land areas may be subject to minor flooding due to localized accumulations from rain. The storm drain system in the Port handles this runoff, and is designed to handle a ten-year storm.

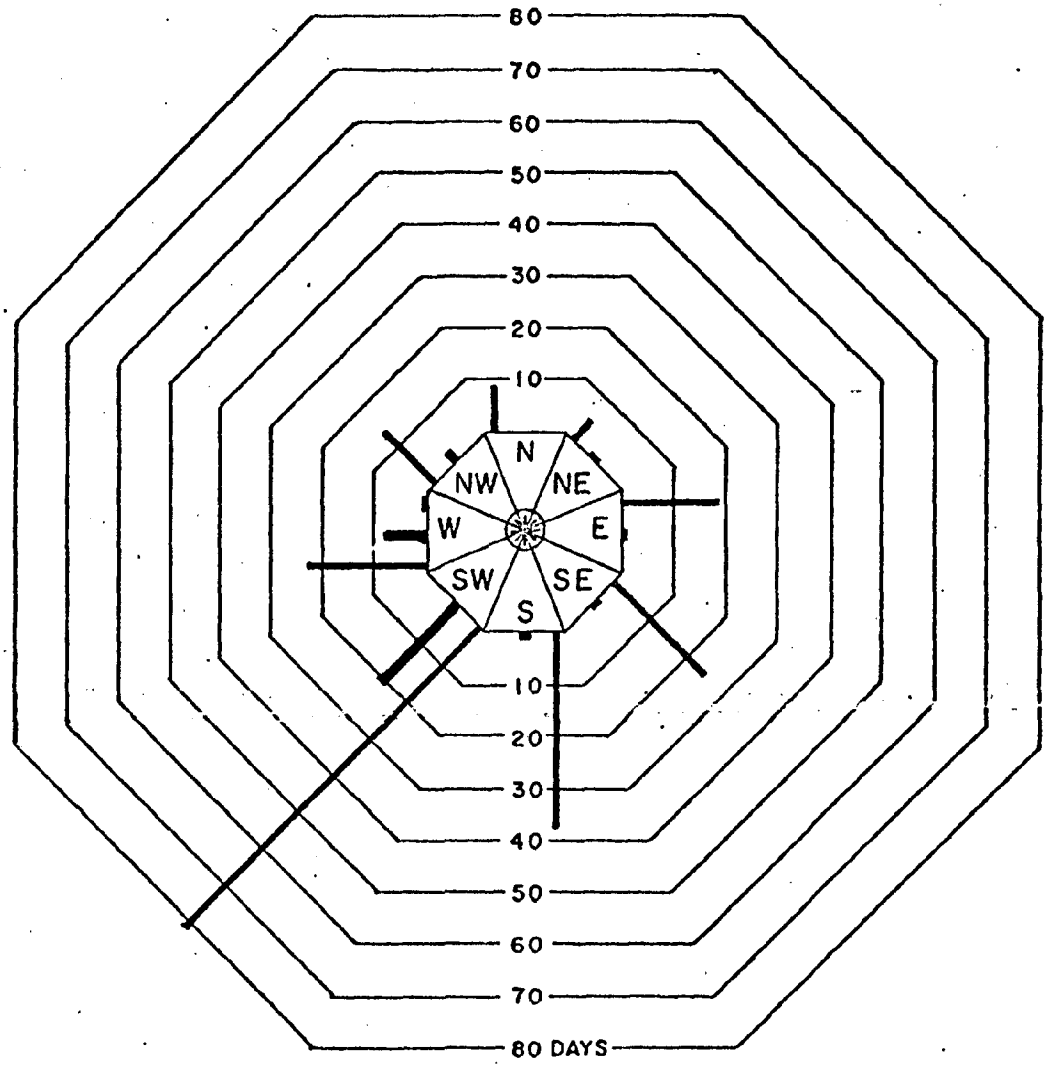
Water Depths

The water depths in the terminal approaches of Port of Long Beach range from 18.9 meters (62 feet) in the Main Channel, Middle Harbor Basin, Back Channel Two, Channel Three and westerly portion of Cerritos Channel (See Figure 3). Adjacent to berths water depths range from 18.9 meters (62 feet) to 11 meters (36 feet). The deep berths and channels in the Port can accommodate vessels in the 50,000 to 200,000 DWT class with drafts not exceeding 58 feet. This class includes large crude oil carriers, and ore bulk carriers. Water depths of 45 feet can accommodate large container ships, ro-ro vessels and Lighter-Aboard-Ships (LASH) vessels of the 20,000 to 50,000 DWT class with drafts not exceeding 34 feet. Typical general cargo and break bulk cargo ships of the 15,000 to 20,000 DWT can be accommodated at Berths having a water depth of 36 to 40 feet.

Navigational Aids

In order to facilitate navigation within the Long Beach breakwater the Port has stationed navigational aids (N.A.) along the various channels and basins in the Port. These aids include beacon lights, horns and/or Morse Code generators (See Figure 4). N.A.'s are located on either side of Queens Gate, at the tips of Pier J and Pier A, along the Main Channel, at the entrances to the Southeast Basin, the Middle Harbor, the Back Channel. N.A.'s are also placed at points along the Navy Mole, at Slip 3, and on the Harbor Administration Building roof. New N.A.'s are proposed to facilitate ships traversing the Back Channel, thereby improving navigational safety.

The Port Pilot Station, shown in Figure 4, contains a radar tower and radar monitoring equipment capable of tracking vessels in the vicinity of Port waters. The Pilot Station also maintains a radio monitoring on Channels 16, 12 and 74. The latter represent working frequencies for piloting ships within the Port. A more extensive discussion of Pilot Services is contained in the subsequent section on Inter-Agency Coordination - San Pedro Bay Navigational Operating Procedures/Regulations and Practices. Appendix A also contains pertinent details.



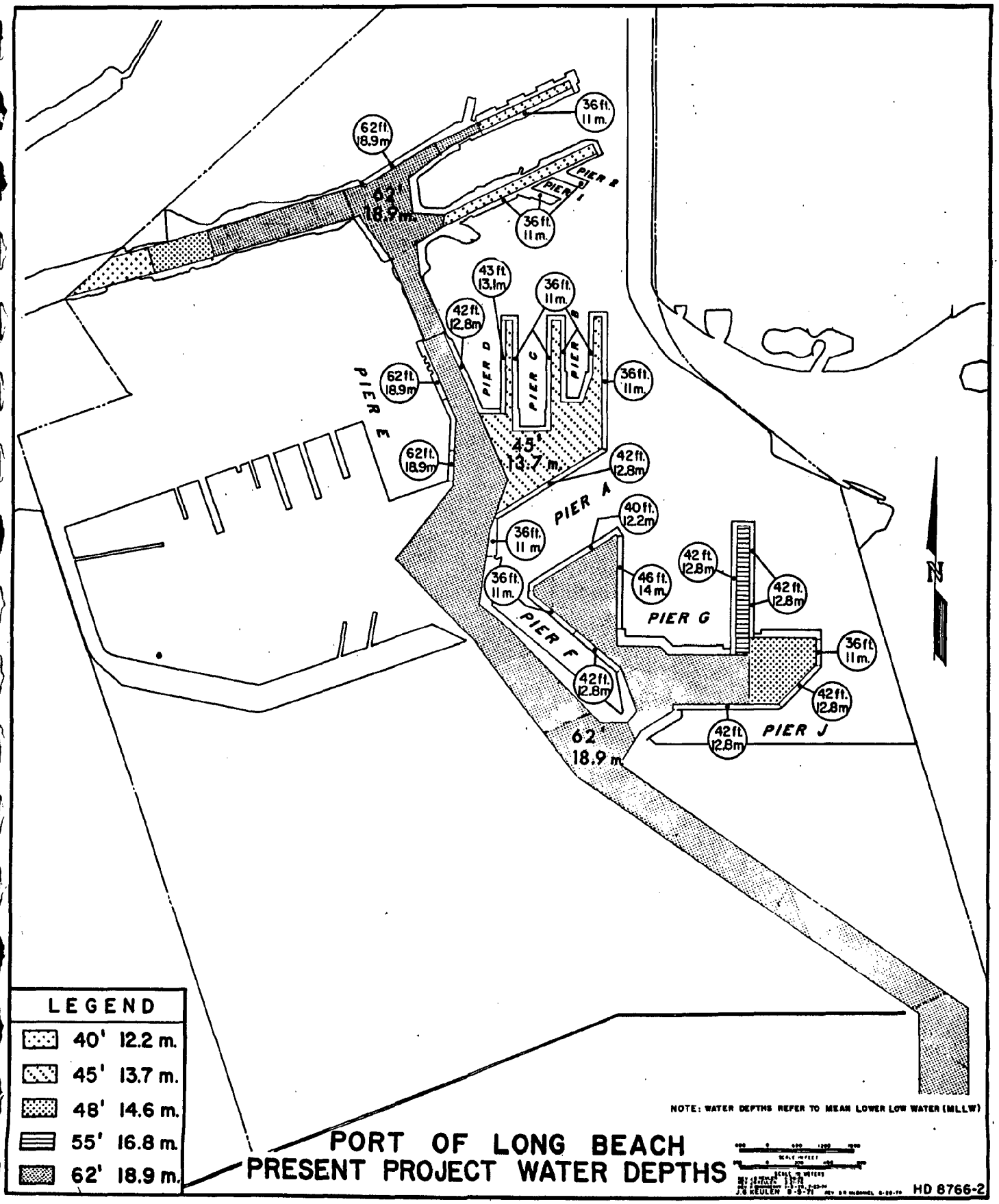
LEGEND

0 TO 13 M.P.H.
13 TO 28 M.P.H.
OVER 28 M.P.H.

NOTE:

DISTRIBUTION OF WIND SPEED AND DIRECTION IN DAYS COMPILED FROM CLIMATOLOGICAL RECORDS RECORDED BY THE PORT OF LONG BEACH OVER A PERIOD OF THREE CONSECUTIVE YEARS ENDING 12-31-78.

WIND ROSE DIAGRAM
FIGURE 2



36 ft. 11 m.
62 ft. 18.9 m
62' 18.9 m.
PIER 2
PIER 1
36 ft. 11 m.
43 ft. 13.1 m
36 ft. 11 m.
42 ft. 12.8 m
PIER D
PIER C
PIER B
36 ft. 11 m.
62 ft. 18.9 m
PIER E
62 ft. 18.9 m
45' 13.7 m.
42 ft. 12.8 m
PIER A
40 ft. 12.2 m
36 ft. 11 m
36 ft. 11 m.
46 ft. 14 m.
42 ft. 12.8 m
42 ft. 12.8 m
PIER G
PIER F
36 ft. 11 m.
42 ft. 12.8 m
42 ft. 12.8 m
42 ft. 12.8 m
PIER J
62' 18.9 m
N
LEGEND
40' 12.2 m.
45' 13.7 m.
48' 14.6 m.
55' 16.8 m.
62' 18.9 m.
NOTE: WATER DEPTHS REFER TO MEAN LOWER LOW WATER (MLLW)
PORT OF LONG BEACH
PRESENT PROJECT WATER DEPTHS
HD 8766-2

FIGURE 3

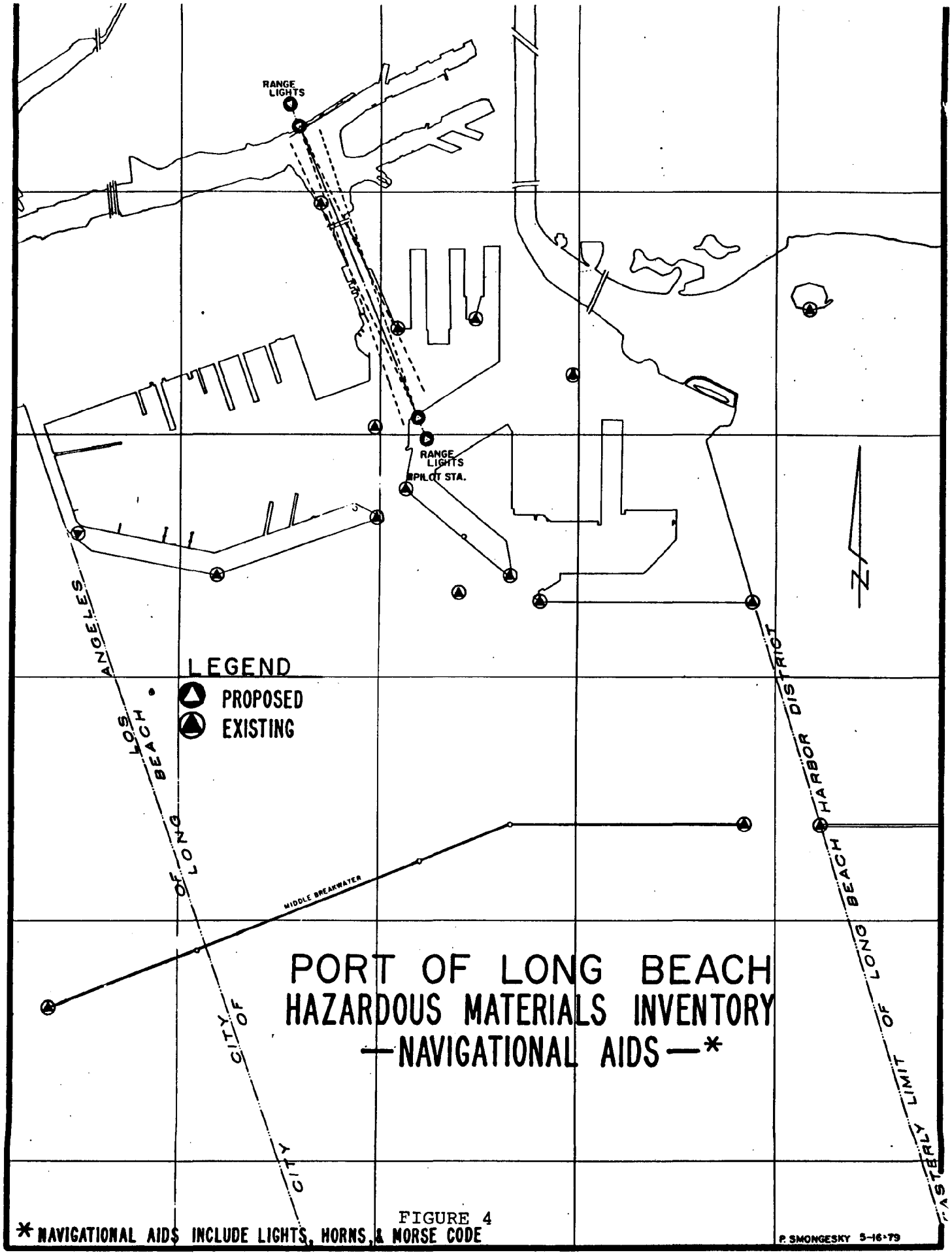

RANGE LIGHTS
RANGE LIGHTS
PILOT STA.
LEGEND
PROPOSED
EXISTING
CITY OF LOS ANGELES
CITY OF LONG BEACH
HARBOR DISTRICT
OF LONG BEACH
EASTERLY LIMIT
MIDDLE BREAKWATER
PORT OF LONG BEACH
HAZARDOUS MATERIALS INVENTORY
—NAVIGATIONAL AIDS—*
*NAVIGATIONAL AIDS INCLUDE LIGHTS, HORNS, & MORSE CODE
P. SMONGESKY 5-16-79

FIGURE 4

Section 3
TRANSPORTATION AND STORAGE INVENTORY

This section of the HMI will identify associated inland transportation modes and storage facilities.

Transportation

The Port is served by an intricate inland transportation network consisting of railroads, highways and pipelines, all of which may transport hazardous materials into or out of the Harbor District. Three transcontinental railroads (Sante Fe, Southern Pacific and Union Pacific) either directly or indirectly connect with the Port-owned Harbor Belt Line Railroad. This Port rail system comprises approximately 60 miles of rail trackage, including access to nearly all berths, warehouses, storage areas and terminals. Figure 5 indicates the rail system adjacent to and located within the Port of Long Beach. The circles indicate the locations of the railroad switching, storage and classification yards and their estimated rail car capacity.

Major highways, freeways and interstates linking the Port with inland markets include the Long Beach Freeway (State Route 7), the Terminal Island Freeway (State Route 47), and the Harbor Freeway (State Route 8). These highways in turn intersect interstate Highways 5, 10, 91 and 405.

Figure 6 indicates the primary, secondary and tertiary roadway system in the Harbor District and how these roads relate to various Port terminals.

There are two general classes of traffic in the Port, that passing through the area and that originating or terminating at Port facilities. The through traffic is generally east/west, consisting principally of passenger vehicles on Ocean Boulevard which travels to and from the U.S. Naval installations on Terminal Island. A smaller portion of the east/west traffic involves interharbor movements between the Ports of Los Angeles and Long Beach and San Pedro. Most north/south terminal traffic moves via the Long Beach Freeway, Pico Avenue, and the Terminal Island Freeway. Truck traffic on the Long Beach and Terminal Island Freeways amounts to 20% of total vehicle movements on these arterials. Truck traffic on secondary and teritary roadways could exceed these percentages in areas adjacent to heavy terminal activity. Figures 7 and 8 indicate the 24-hour outbound traffic density and hourly outbound traffic capacity respectively for the base year 1973. Port traffic has not substantially changed since this study was conducted.

There is an extensive network of pipelines throughout the Port. These pipelines serve oil production facilities, petroleum and chemical cargo terminals and vessel bunkering.

Oil production lines connect oil wells with storage and processing facilities located within and adjacent to the Port. These pipelines interlace nearly every major parcel of land in the Port District. Major crude oil and petroleum product lines serve to link marine petroleum terminals with inland tank farms and refineries. Table 2 indicates the number size, and capacity of pipelines serving various marine petroleum terminals. In addition, seventeen miles of bunker fuel pipelines utilized for ship refueling are installed along berths located in the Middle and Southeast Harbor Planning Districts. There are 55 fueling stations with a capability of delivering 3,500 bbls/hr to 6,000 bbls/hr depending on the berth location. The bunkering system is illustrated on Figure 9.

Table 1-1 to Table 1-9 indicates the Port facilities handling hazardous cargoes by planning district, the type of hazardous commodity and the mode of transport into and out of the harbor.

Storage

The storage of Hazardous Marterials can take several forms however, the principal method of storage in the Port is by tank. In general, tankage in the Port, accounts for the storage of crude oil, solvents, gasoline, diesel, fuel oil, caustic soda, naptha and numerous other chemicals and additives used in various manufacturing and commercial processes. Storage tanks are either above or underground and are located in nearly every area of the Port. Tables 3-1 through 3-10 indicate the operator, location, types of tank storage and commodity, and number and capacity.

Other methods of storage include silos, containers and open storage piles. Table 4 generally shows the location of facilities with these types of storage facilities.

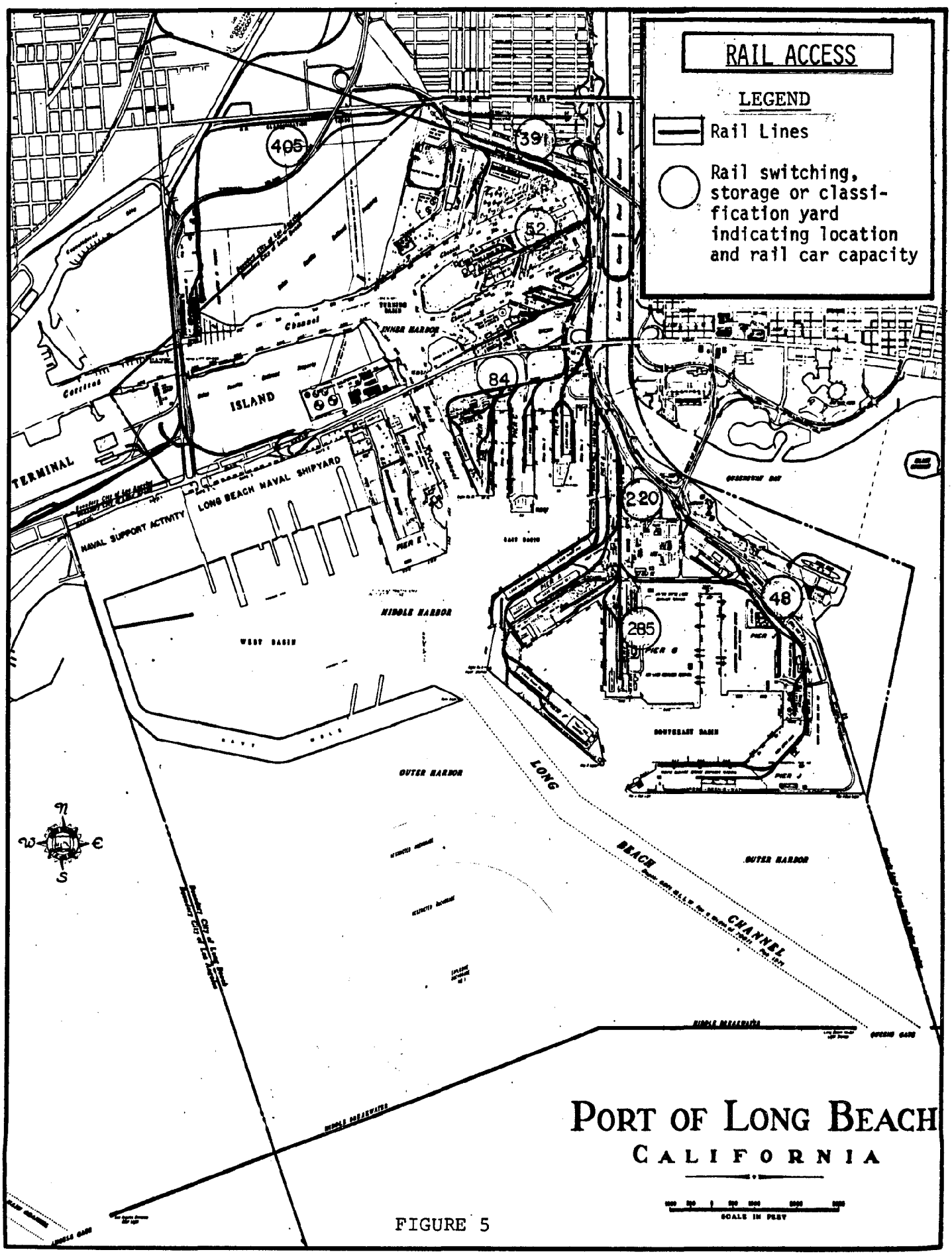

RAIL ACCESS
LEGEND
Rail Lines
Rail switching, storage or classification yard indicating location and rail car capacity
405
391
52
84
220
285
48
ISLAND
TERMINAL
LONG BEACH NAVAL SHIPYARD
NAVAL SUPPORT ACTIVITY
INNER HARBOR
MIDDLE HARBOR
WEST BASIN
OUTER HARBOR
LONG BEACH CHANNEL
SOUTHEAST BASIN
N
W
E
S
PORT OF LONG BEACH
CALIFORNIA
SCALE IN FEET

FIGURE 5

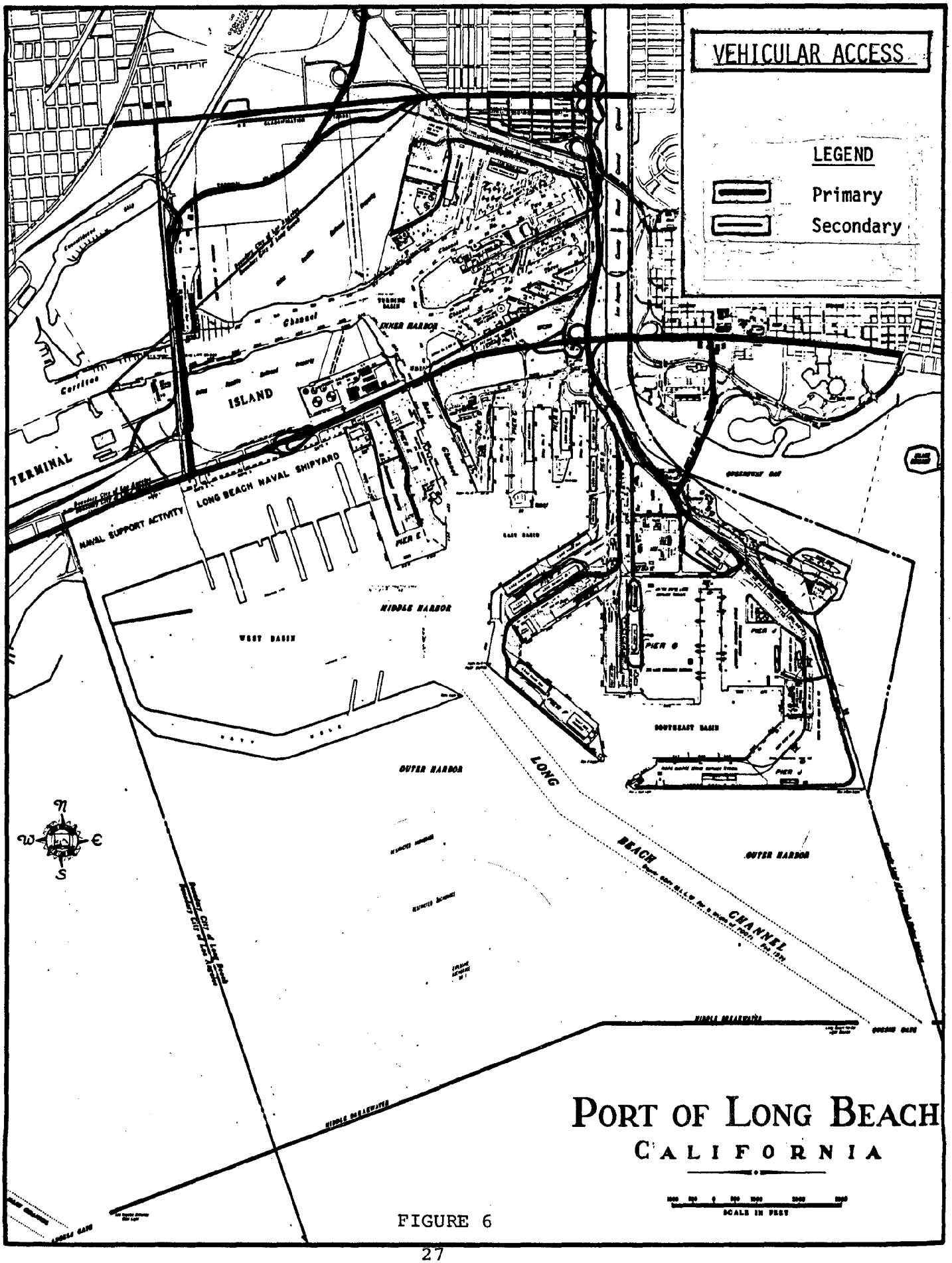

VEHICULAR ACCESS
LEGEND
Primary
Secondary
INNER HARBOR
ISLAND
TERMINAL
LONG BEACH NAVAL SHIPYARD
NAVAL SUPPORT ACTIVITY
MIDDLE HARBOR
WEST BASIN
OUTER HARBOR
LONG BEACH CHANNEL
OUTER HARBOR
SOUTHEAST BASIN
PORT OF LONG BEACH
CALIFORNIA
SCALE IN FEET

FIGURE 6

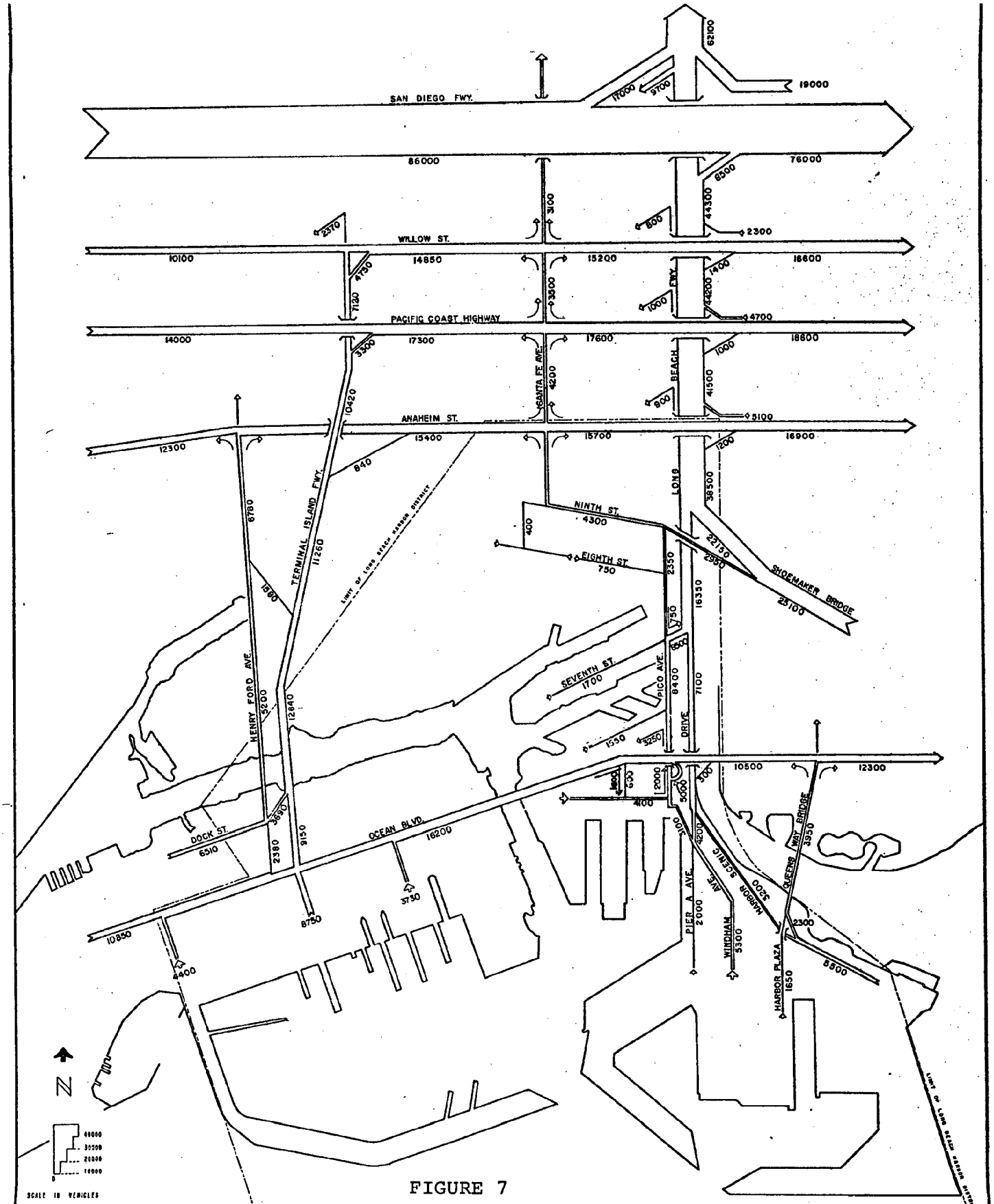
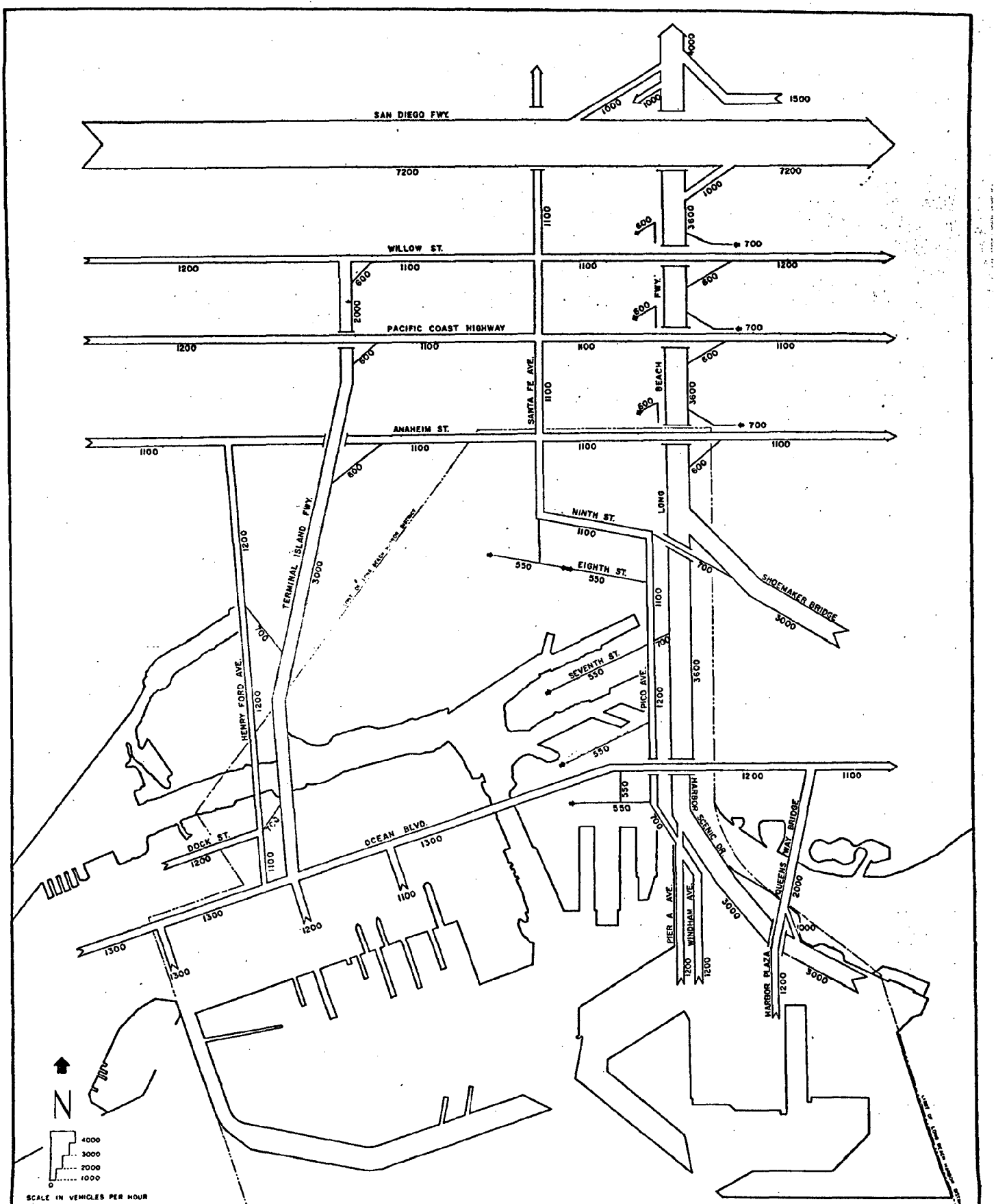


FIGURE 7

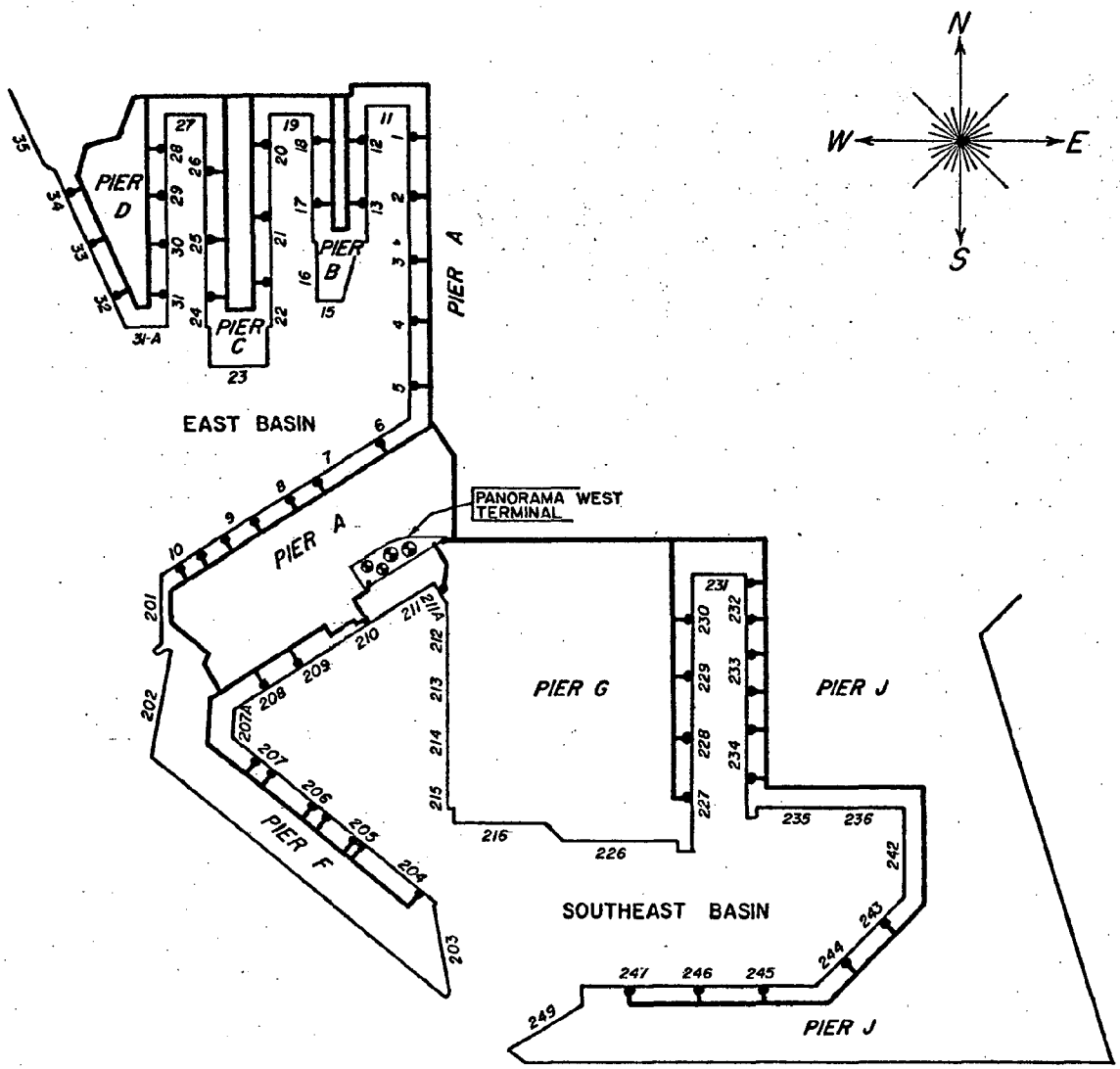
VEHICULAR TRAFFIC DENSITY 24 HOUR OUTBOUND

1973



HOURLY VEHICULAR CAPACITY— OUTBOUND TRAFFIC
1973

FIGURE 8



Port of Long Beach

Bunkering System - 1975

FIGURE 9

REV. J.G.K. 1-8-75 P. SMONGESKY 2-1-73

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

NORTH HARBOR DISTRICT

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
Stan's Van	1141 Caspian	Gasoline & Diesel		X	
L.B. Iron	2100 W. Anaheim	Gasoline		X	
Servatron	1106 Caspian	Gasoline		X	
Am. Wholesale Hrd.	1212 Caspian	LPG		X	
Trans - Harbor Ter.	1130 Santa Fe	Gasoline & Diesel		X	
Sun Van Calif.	1520 W. 11th St.	Gasoline		X	
Cable Car Co.	1326 W. 12th St.	Diesel		X	
Lomita Gas	1348 W. 9th St.	LPG		X	
Australian Cont.	1540 W. 9th St.	Gasoline		X	
L.B. Neon	1812 W. 9th St.	Gasoline		X	

TABLE 1-1

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

WEST HARBOR DISTRICT

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
Calada Material	3501 Dock St.	Gasoline		X	
County Salvage Co.	3861 Seaside Blvd.	LPG		X	
Dow Chemical	3601 Dock St.	Chemicals	X	X	

TABLE 1-2

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

NORTHWEST HARBOR DISTRICT

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
South Wind Chevron Service Station	700 Henry Ford	Gasoline & Diesel		X	
Port Terminals	700 Henry Ford	Gasoline		X	
Champlin	204 Henry Ford	Crude			X
S.C. Edison	2665 W. Seaside	Gasoline, Crude, LPG		X	X

TABLE 1-3

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

NORHTEAST HARBOR DISTRICT

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
Long Beach Harbor Department	100 N. Alpine	Gasoline & Diesel		X	
Weyerhauser	1930 Edison	Gasoline		X	
Fremont Forest Prod.	1933 Edison	Gasoline		X	
Texaco	2050 Edison	Crude and Refined Products			X
ARCO	1300 W. 8th St.	Crude and Refined Products			X
Powerine Oil	1405 W. 7th St.	Crude and Refined Products			X
ARCO	1400 W. 7th St.	Crude and Refined Products			X
Cal. Shipbuilding	1601 Water St.	Gasoline & Diesel		X	

TABLE 1-4

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

NORTHEAST HARBOR DISTRICT -2

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
Connolly Pacific	1925 Water St.	Gasoline & Diesel		X	
Omin. Eng. Service	1409 W. 7th St.	Gasoline		X	
Connolly Pacific	1512 W. 7th St.	Gasoline & Diesel		X	
W. W. Lynch	1500 W. 8th St.	Gasoline, LGP, Diesel		X	
Warren Trucking	1600 W. 8th St.	Gasoline, LPG, Diesel		X	
National Gypsum	1850 W. 8th St.	LPG, Lube Oil		X	
LBOD	2086 W. 8th St.	Crude			X
LBOD	2083 W. 8th St.	Crude			X
LBTC	1920 Lugger	Refined Petro. Products		X	
Proctor & Gamble	1601 W. 7th St.	Gasoline, Hydrogen, LPG	X	X	

TABLE 1-5

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

MIDDLE HARBOR DISTRICT

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
Crescent Wharf	1660 El Embarcedro	Gasoline		X	
Pool Co.	120 S. Pico	Diesel		X	
Marine Terminals	920 Pier A Avenue	Gasoline		X	
Crown Zellerbach	943 Pier A Avenue	Gasoline		X	
ARCO	300 Pier E Avenue	Gasoline			X
National Molasses	983 Pier A Avenue	Crude and Refined Products		X	X
Universal Marine	692 Pier E Avenue	Diesel		X	
Kobe, Inc.	1120 W. Seaside Blvd.	Gasoline		X	
Baker Commodities	520 Pier D Avenue	Gasoline		X	

TABLE 1-6

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

SOUTHEAST HARBOR DISTRICT

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
Koppel Grain	1130 Panorama Dr.	Diesel & Grain	X	X	
Exxon Co.	1200 Panorama Dr.	Gasoline, Bunkers, Diesel		X	X
Ocean Salt Co.	1250 Panorama Dr.	Diesel		X	
Harbor Banana	1420 Panorama Dr.	Gasoline		X	
Metropolitan Stevedore Co.	1045 Pier G Ave.	Gasoline & LPG		X	
Thums	1310 Pier G Avenue	Gasoline		X	
Thums	1115 Pier J Avenue	Crude			X
Toyota	1245 Pier J Avenue	Gasoline		X	
Queen Mary Emergency Plant	1256 Pier J Avenue	Lube Oil		X	

TABLE 1-7

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

SOUTHEAST HARBOR DISTRICT -2

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
ITS	1281 Pier J Avenue	Gasoline, Diesel		X	
National Molasses Co.	1395 Pier J Avenue	Chemicals	X	X	
Chevron Service Station	990 Queens Highway	Gasoline			X
Powerine Oil Co.	865 Van Camp St.	Crude			X
Powerine Oil Co.	636 Windham	Crude			X
LBOD	705 Windhan	Gasoline & Diesel		X	
Powerine Oil Co.	910 Windham	Gasoline & Diesel		X	
Powerine Oil Co.	945 Windham	Crude			X
U.S. Lines	980 Windham	Gasoline		X	

TABLE 1-8

HAZARDOUS MATERIAL TRANSPORTATION
BY INLAND TRANSPORTATION MODE

SOUTHEAST HARBOR DISTRICT -3

OPERATOR	LOCATION	HAZARDOUS COMMODITY	MODE OF TRANSPORT		
			RAIL	TRUCK	PIPELINE
Pasha	387 Harbor Scenic Way	Gasoline		X	
Powerine Oil Co.	699 S. Harbor Scenic Way	Crude			X
Chevron	988 Harbor Scenic Drive	Crude			X
Chevron	1040 Harbor Scenic Drive	Crude			X
Sea Land	669 Panorama Dr.	Gasoline, Diesel, Propane		X	
Thums	Berth 216	Diesel		X	

TABLE 1-9

MAJOR CRUDE OIL AND PRODUCT PIPELINES				
TERMINAL OPERATOR	LOCATION	NUMBER/ SIZE	PUMPING CAPACITY	LOCATION AND DISTANCE TO INLAND STORAGE
ARCO #2	Berths 76-79	1-10" 1-12" 1-14"	5,000 bbls/hr	Carson - 3.5 mi.
ARCO #3	1405 W. 7th St.	2-14" 1-8"	10,000 bbls/hr	To Terminal #2
ARCO	Berth 118	1-24" 1-14"	25,000 bbls/hr	To Terminal #2 2.5 miles
Texaco	Berths 84-87	1-24" 1-16" 1-14"	20,000 bbls/hr 10,000 bbls/hr 8,000 bbls/hr	Wilmington 2.0 Miles
Powerine	Berth 73	1-6" 1-8"	750 bbls/hr 1300 bbls/hr	Santa Fe Springs 26 miles
Long Beach Terminal Company	Berth 83	1-8"	4000 bbls/hr	Via Texaco
Exxon	Berth 209	See Figure 9 (Bunkering)		

TABLE - 2

HAZARDOUS MATERIAL STORAGE (TANKAGE)

NORTH HARBOR DISTRICT

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
Stan's Van	1141 Caspian	U.G. Tank U.G. Tank	Gasoline Diesel 2 Tanks total	1 - 3,000 gal. 1 - 4,000 gal. 7,000 gal.	
L.B. Iron	2100 W. Anaheim	U.G. Tank	Gasoline	1 - 5,000 gal.	
Servatron	1106 Caspian	U.G. Tank	Gasoline 2 Tanks total	2 - 11,000 gal. 22,000 gal.	
Am. Wholesale Hrd.	1212 Caspian	A.G. Tank	Liquid Petro. Gas	1 - 1150gal.	
Trans - Harbor Ter.	1130 Santa Fe.	U.G. Tank U.G. Tank	Gasoline Diesel 2 Tanks total	1 - 5,000 gal. 1 - 5,000 gal. 10,000 gal.	
Sun Van Calif.	1520 W. 11th St.	U.G. Tank	Gasoline	1 - 1,000 gal.	
Cable Car Co.	1326 W. 12th St.	U.G. Tank	Diesel 2 Tanks total	2 - 8,500 gal ea 17,000 gal.	
Lomita Gas	1348 W. 9th St.	A.G. Tank	LPG	1 - 1,150 gal.	
Australian Cont.	1540 W. 9th St.	U.G. Tank	Gasoline	1 - 10,000 gal.	
L.B. Neon	1812 W. 9th St.	U.G. Tank	Gasoline	1 - 10,000 gal.	

Source: Long Beach Fire Department
May 1979

TABLE 3-1

HAZARDOUS MATERIAL STORAGE (TANKAGE)

WEST HARBOR DISTRICT

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
Calada Material	3501 Dock St.	U.G. Tank	Gasoline	1 - 1,000 gal.	
County Salvage Co.	3861 Seaside Blvd.	A.G. Tank	LPG	1 - 500 gal.	
Dow Chemical	3601 Dock St.	A.G. Fixed Roof Tank	Chemicals	2 - 46,000 gal	
		A.G. Fixed Roof Tank	Chemicals	2 - 45,000 gal	
		A.G. Fixed Roof Tank	Chemicals	2 - 153,000 gal	
		A.G. Fixed Roof Tank	Chemicals	2 - 273,000 gal	
		A.G. Fixed Roof Tank	Chemiclas	1 - 287,000 gal	
		A.G. Fixed Roof Tank	Chemicals	2 - 270,000 gal	
		A.G. Fixed Roof Tank	Chemicals	1 - 267,000 gal	
		A.G. Fixed Roof Tank	Chemicals	1 - 629,000 gal	
		A.G. Fixed Roof Tank	Chemicals	2 - 432,000 gal	
		A.G. Fixed Roof Tank	Chemicals	3 - 50,000 gal	
		A.G. Fixed Roof Tank	Chemicals	1 - 39,000 gal	
			19 Tanks total	3,810,000 gals.	
U.G. - Underground A.G. - Above Ground	gal. = gallons bbl. = barrels 1 bbl = 42 gallons	LPG - Liquified Petro Fixed = Fixed Roof Floating = Floating	Gas. Tanks		

TABLE 3-2

HAZARDOUS MATERIAL STORAGE (TANKAGE)

NORTHWEST HARBOR DISTRICT

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
South Wind Chevron Service Station	700 Henry Ford	U.G. Tanks	Diesel Gasoline 3 Tanks total	1 - 8,800 gals. 2 - 8,800 gals. 26,400 gals.	
Port Terminals	700 Henry Ford	A.G. Fixed Roof Tank	Gasoline	1 - 5,000 gals.	
Champlin	204 Henry Ford	A.G. Fixed Roof Tank	Crude	23 - 53,200 bbls.	
S. C. Edison	2665 W. Seaside	U.G. Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank	Gasoline LPG Crude 8 Tanks total	1 - 24 bbl 1 - 12 bbl 6 - 1,476,000 bbl 1,476,036 bbls.	

TABLE 3-3

HAZARDOUS MATERIAL STORAGE (TANKAGE)

NORTHEAST HARBOR DISTRICT

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
Long Beach Harbor Department	100 N. Alpine	U.G. Tank U.G. Tank U.G. Tank	Diesel Gasoline Gasoline 3 Tanks total	1 - 2,000 gal. 1 - 4,000 gal. 1 - 850 gal. 6,850 Gallons	
Weyerhauser	1930 Edison	U.G. Tanks	Gasoline Gasoline 2 Tanks total	1 - 2,000 gal. 1 - 5,000 gal. 7,000 Gallons	
Fremont Forest Prod.	1933 Edison	U.G. Tank	Gasoline	1 - 2,000 gal.	
Texaco	2050 Edison	A.G. Fixed Roof Tank A.G. Floating Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank	Refined Prod. Refined Prod. Refined Prod. Refined Prod. Refined Prod. 6 Tanks total	2 - 34,000 bbl ea 1 - 34,000 bbl 1 - 76,000 bbl 1 - 53,000 bbl 1 - 14,000 bbl 245,000 bbl	
ARCO	1300 W. 8th St.	A.G. Fixed Roof Tank A.G. Floating Tanks	Lube Oil Crude & Refined Petro. Prod. 33 Tanks total	8 - 86,000 bbl 25- 1,930,000 bbl 2,016,000 bbl	
Powerine Oil	1405 W. 7th St.	A.G. Floating Tanks A.G. Fixed Roof Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank	Crude & Refined Petro. Prod. Crude & Refined Petro. Prod. Crude & Refined Petro Prod. Crude & Refined Petro. Prod. 9 Tanks total	2 - 43,000 bbl ea 3 - 94,000 bbl ea 2 - 67,000 bbl ea 2 - 35,000 bbl ea 572,000 bbbl	

TABLE 3-4

HAZARDOUS MATERIAL STORAGE (TANKAGE)

NORTHEAST HARBOR DISTRICT (CONT) - 2

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
ARCO	1400 W. 7th St.	A.G. Floating Tank A.G. Fixed Tank	Crude Crude 7 Tanks total	1 - 109,000 bbl 6 - 391,000 bbl 500,000 bbl	
Cal. Shipbuilding	1601 Water St.	U.G. Tanks U.G. Tanks	Gasoline Diesel 2 Tanks total	1 - 20,000 gal. 1 - 20,000 gal. 40,000 gal.	
Connolly Pacific	1925 Water St.	U.G. Tank U.G. Tank	Diesel Gasoline 2 Tanks total	1 - 12,000 gal. 1 - 2,000 gal. 14,000 gal.	
Omin. Eng. Service	1409 W. 7th St.	U.G. Tank	Gasoline 2 Tanks total	2 - 500 gal. ea 1,000 gal.	
Connolly Pacific	1512 W. 7th St.	U.G. Tank U.G. Tank	Diesel Gasoline 2 Tanks total	1 - 12,000 gal. 1 - 2,000 gal. 14,000 gal.	
W. W. Lynch	1500 W. 8th St.	U.G. Tank U.G. Tank U.G. Tank U.G. Tank	Gasoline Diesel LPG LPG 4 Tanks total	1 - 15,960 gal. 1 - 20,000 gal. 1 - 550 gal. 1 - 172 gal. 36,682 gal.	
Warren Trucking	1600 W. 8th St.	A.G. Tank U.G. Tank U.G. Tank U.G. Tank	LPG Gasoline Diesel Diesel 5 Tanks total	1 - 1,000 gal. 1 - 5,000 gal. 2 - 5,000 gal. ea 1 - 7,500 gal. 23,500 gal.	

TABLE 3-5

HAZARDOUS MATERIAL STORAGE (TANKAGE)

NORTHEAST HARBOR DISTRICT (CONT) - 3

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
National Gypsum	1850 W. 8th St.	U.G. Tanks A.G. Tanks A.G. Tanks	Lube Oil LPG Class 2 4 Tanks total	2 - 16,000 gal. ea 1 - 1,100 gal. 1 - 25,000 gal. 58,100 gal.	
LBOD	2086 W. 8th St.	A.G. Fixed Tank A.G. Fixed Tank A.G. Fixed Tank	Crude Crude Crude 5 Tanks total	2 - 1,000 gal. ea 1 - 5,000 gal. 2 - 7,500 gal. ea 22,000 gal.	
LBOD	2083 W. 8th St.	A.G. Fixed Tank A.G. Fixed Tank	Crude Crude 7 Tanks total	6 - 500 gal. ea 1 - 750 gal. 3,750 gal.	
LBTC	1920 Lugger	U.G. Tank U.G. Tank A.G. Tank	Diesel Sloptank Refined Products 4 Tanks total	1 - 238 bbl. 1 - 238 bbl. 2 - 109,000 bbl. ea 218,476 bbl.	
Proctor & Gamble Co.	1601 W. 7th St.	A.G. Tank U.G. Tank A.G. Tank A.G. Tank	LPG Gasoline Hydrogen Tolune	6 - 1,000 gal. ea 1 - 8,000 gal. ea 1 - 80,000 cu.ft. 1 - 20,000 gal.	

TABLE 3-6

HAZARDOUS MATERIAL STORAGE (TANKAGE)

MIDDLE HARBOR DISTRICT

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
Crescent Wharf	1660 El Embarcadero	U.G. Tank	Gasoline	1 - 2,000 gal.	
Pool Co.	120 S. Pico	U.G. Tank	Diesel	1 - 5,000 gal.	
Marine Terminals	920 Pier A Avenue	U.G. Tank	Gasoline	3 - 27,500 gal. total	
Crown Zellerbach	943 Pier A Avenue	U.G. Tank	Gasoline	1 - 1,000 gal.	
ARCO	300 Pier E Avenue	A.G. Fixed Roof Tank	Slop Tank 2 Tanks total	1 - 3,700 bbl. 1 - 900 bbl. 4,600 bbl.	
National Molasses	983 Pier A Avenue	A.G. Fixed Roof Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank	Crude Crude Crude 5 Tanks total	2 - 27,000 bbl ea 2 - 5,000 bbl ea 1 - 2,000 bbl 66,000 bbl.	
Universal Marine	692 Pier E Avenue	U.G. Tank	Diesel	1 - 12,000 gal.	
Kobe, Inc.	1120 W. Seaside Blvd.	U.G. Tank	Gasoline	1 - 5,000 gal.	
Baker Commodities	520 Pier D Ave.	U.G. Tank A.G. Tank	Gasoline	1 - 1,000 gal. 22 - 163,200 bbl.	

TABLE 3-7

HAZARDOUS MATERIAL STORAGE (TANKAGE)

SOUTHEAST HARBOR DISTRICT

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
Koppel Grain	1130 Panorama Dr.	U.G. Tank Grain Elevator	Diesel Grains	1 - 1,000 gal. 2,225,000 bushels	
Exxon Co.	1200 Panorama Dr.	U.G. Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank	Gasoline Bunkers Diesel Lube Oil 14 Tanks total	3 - 250 bbl total 2 - 135,000 bbl ea 2 - 64,000 bbl ea 7 - 600 bbl ea 398,850 bbls.	
Ocean Salt Co.	1250 Panorama Dr.	U.G. Tank	Diesel	1 - 550 gal	
Harbor Banana	1420 Panorama Dr.	U.G. Tank	Gasoline	1 - 8,000 gal.	
Metropolitan Stevedore Co.	1045 Pier G Ave.	U.G. Tank A.G. Tank	Gasoline LPG. 2 Tanks total	1 - 2,000 gal. 1 - 500 gal. 2,500 gal.	
Thums Co.	1310 Pier G. Avenue	U.G. Tank	Gasoline	1 - 12,000 gal.	
Thums Co.	1115 Pier J Avenue	A.G. Tank	Crude	6 - 209,000 bbls	
Toyota	1245 Pier J Avenue	U.G. Tank U.G. Tank U.G. Tank U.G. Tank	Wash Tank Gasoline Gasoline Gasoline 6 Tanks total	2 - 10,000 gal. 2 - 10,000 gal. 1 - 1,000 gal. 1 - 7,500 gal. 48,500 gal.	

TABLE 3-8

HAZARDOUS MATERIAL STORAGE (TANKAGE)

SOUTHEAST HARBOR DISTRICT (CONT) - 2

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
Queen Mary Emergency Plant	1256 Pier J Avenue	A.G. Tank A.G. Tank	LPG Lube Oil 2 Tanks total	1 - 6,000 gal. 1 - 15,000 gal. 21,000 gal.	
ITS	1281 Pier J Avenue	U.G. Tank A.G. Fixed Tank A.G. Fixed Tank	Diesel Gasoline LPG 6 Tanks total	4 - 10,000 gal ea 1 - 1,000 gal. 1 500 gal. 41,500 gal.	
National Molasses Co.	1395 Pier J Avenue	A.G. Fixed Tank	Benzine & Paint Thinner, etc.	28 - 20,000 bbl.	
Chevron Service Station	990 Queens Highway	U.G. Tank	Gasoline 4 Tanks total	2 - 9,562 gal. 2 - 5,760 gal. 15,322 gal.	
Powerine Oil Co.	865 Van Camp St.	A.G. Fixed Roof Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank A.G. Fixed Roof Tank	Crude Crude Crude Crude 14 Tanks total	6 - 2,000 bbl ea 4 - 2,400 bbl ea 2 - 500 bbl ea 2 - 200 bbl ea 23,000 bbls.	
Powerine Oil Co.	636 Windham	A.G. Fixed Roof Tank	Crude	11 - 17,000 bbls. total	
LBOD	705 Windham	U.G. Tanks U.G. Tanks U.G. Tanks U.G. Tanks	Gasoline Solvent Solvent Diesel 6 Tanks total	2 - 10,000 gal ea 2 - 1,000 gal ea 1 - 500 gal. 1 - 1,000 gal. 22,500 gal.	

TABLE 3-9

HAZARDOUS MATERIAL STORAGE (TANKAGE)

SOUTHEAST HARBOR DISTRICT (CONT) - 3

OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	NUMBER/ CAPACITY	SPECIAL DESIGN SAFETY FEATURES
Powerine Oil Co.	910 Windham	U.G. Tank U.G. Tank U.G. Tank	Gasoline Solvent Diesel 4 Tanks total	2 - 1,000 gal ea 1 - 1,000 gal 1 - 1,000 gal 4,000 gal.	
Powerine Oil Co.	945 Windham	A.G. Fixed Roof Tank	Crude	9 - 18,000 bbl total	
U.S. Lines	980 Windham	U.G. Tanks	Gasoline	1 - 10,000 gal	
Pasha	387 Harbor Scenic Way	U.G. Tank	Gasoline	2 - 40,000 gal	
Powerine Oil Co.	699 S. Harbor Scenic Way	A.G. Fixed Roof Tank	Crude	13 - 23,400 bbls	
Chevron	988 Harbor Scenic Drive	A.G. Fixed Roof Tank	Crude	5 - 13,750 bbls.	
Chevron	1040 Harbor Scenic Drive	A.G. Fixed Roof Tank	Crude	6 - 13,500 bbls.	
Sea Land	669 Panorama Dr.	U.G. Tank U.G. Tank U.G. Tank A.G. Tank	Diesel Gasoline Lube Oil Propane 8 Tanks total	2 - 12,000 gals. 2 - 12,000 gals. 2 - 550 gals. 2 - 1,150 gals. 25,700 gals.	
Thums	Berth 216	U.G. Tank	Diesel	2 - 20,000 gals.	

TABLE 3-10

HAZARDOUS MATERIAL STORAGE OTHER THAN TANK STORAGE				
OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	CAPACITY
Metropolitan Stevedore	Berths 212-215	Open and Covered Storage	Petroleum coke	Open - 205,000 tons Closed-270,000 tons
Metropolitan Stevedore	Berths 28-29	Open Storage	Coke, Soda Ash	Open - 77,500 $ft.^2$
Metropolitan Stevedore	Berths 30-31	Open Storage	Scrap Metal, Iron Ore, Grains	Open - 81,500 $ft.^2$
Koppel	Berths 210-211	Grain Elevator	Grains	Closed - 2,225,000 bushels
Calif. United Terminals	Berths 12-13 Berths 17-18 Berths 20-22 Berths 24-26	In Containers and 2-Transit Sheds	Miscellaneous Miscellaneous	Open - 85 acres Closed 356,000 $ft.^2$
Sealand	Berths 227-228	Containers	Miscellaneous	Open - 36.5 acres
Maersk	Berth 229	Containers	Miscellaneous	Open - 30 acres
U.S. Lines	Berth 230	Containers	Miscellaneous	Open - 21 acres

TABLE 4-1

HAZARDOUS MATERIAL STORAGE OTHER THAN TANK STORAGE				
OPERATOR	LOCATION	TYPE OF STORAGE	COMMODITY STORED	CAPACITY
ITS	Berths 232-234	Containers	Miscellaneous	Open - 64 acres
PCT	Berths 245-247	Container	Miscellaneous	Open - 21 acres
Cooper	Berths 7, 9, 10, 201	Transit Shed	Miscellaneous	Closed - 288,000 ft.^{2}
Mercantile Marine	Berths 204,205	Transit Shed	Miscellaneous	Closed - 180,000 ft.^{2}
Crescent	Berths 206,207	Transit Shed	Miscellaneous	Closed - 194,000 ft.^{2}
Open	Berth 5	Transit Shed	Miscellaneous	Closed - 66,000 ft.^{2}
Open	Berths 33,34	Transit Shed	Miscellaneous	Closed - 72,000 ft.^{2}
Open	Berths 48-50	Transit Shed	Miscellaneous	Closed - 127,000 ft.^{2}
Toyota	Berths 243	Open Storage	Automobiles	Open - 40 acres
Pasha	Berth 244	Open Storage	Automobiles	Open - 36 acres

TABLE 4-2

Section 4
VESSEL INVENTORY

The vessel inventory focuses on berths, commodities, and operations involving the shipment of hazardous materials. The fiscal year 1977-1978 was selected as a base period for the inventory because it is the latest complete period for which data is currently available, and because generally vessel data in the Port has been compiled and programmed on a fiscal year basis. The current inventory is presented with the berth and commodity throughputs classified within one to ten revenue ton ranges. This classification is used for a number of significant reasons. First, a preliminary survey of dangerous cargo manifests proved exceedingly cumbersome for achieving the stated objective of the inventory. Second, publication of exact throughput figures by berth or commodity tends to compromise the competitive position of particular Port tenants. These figures are, therefore, considered proprietary, and are not generally available to the public. Third, compiling berth and commodity throughputs within specified ranges, rather than listing exact figures, provides a reasonable and sufficient description of the extent of hazardous material throughput consistent with the intent of the program. (See Figure 10 and Table 5).

In fiscal 1977-1978 there were 4,169 vessel visits to the Port of Long Beach. Containers and break bulk cargo ships represented the largest number of vessel visits; about 30% of the total. Petroleum cargo vessel visits, including bunker vessels represented 18% of total vessel visits. Chemical and dry bulk cargo represented 11% of vessel visits, with chemical cargo only 3% of the total. Automobile cargo vessels represented 5% of total vessel visits. In addition to normal commercial vessel visits, 5% of such visits were related to the Navy Base, 21% represented vessels at anchor in the Harbor, and 10% were miscellaneous visits not represented by a particular hazardous cargo type (See Figure 11).

The majority of vessel visits in fiscal 1977-1978 were directed towards the Southeast Harbor District (34%). Most of these visits consisted of container cargo ships. Dry bulk cargo ships were the second most frequent visitors to this district, while break bulk, automobile and other miscellaneous cargoes represented the significant balance. Less than 1% of the vessel visits for this district involved chemical or petroleum cargoes.

Next in total volume of vessels was the Middle Harbor District with 22% of all vessel visits to the Port. Container and break bulk vessels represented the majority of vessel visits to this district (44%). Petroleum and chemicals were next in order of cargo vessel visits 21%. Dry bulk and automobile cargo vessel visits totaled only 13% of vessel visits to this district. A significant portion of vessel visits appeared to be of a non-cargo related nature in this district (22%).

The Southwest Harbor District experienced 21% of total vessel visits. This district is primarily an anchorage area where ships may stop over for various purposes before proceeding to their final destination which may be another port or a berth in the Port of Long Beach. Many of these ships anchored to take on bunkers by barge. Total bunkers supplied at anchors and at berths in the 1977-1978 fiscal year was about 3,650,000 revenue tons.

The Northeast Harbor District encountered about 17% of total vessel visits. The majority of these visits represented petroleum and/or bunker cargo vessels. Some vessels carrying chemical and break bulk cargos visited the district, but these represented less than 6% of the vessels visiting the district. Also, a small quantity of non-cargo related or miscellaneous vessel visits occurred here.

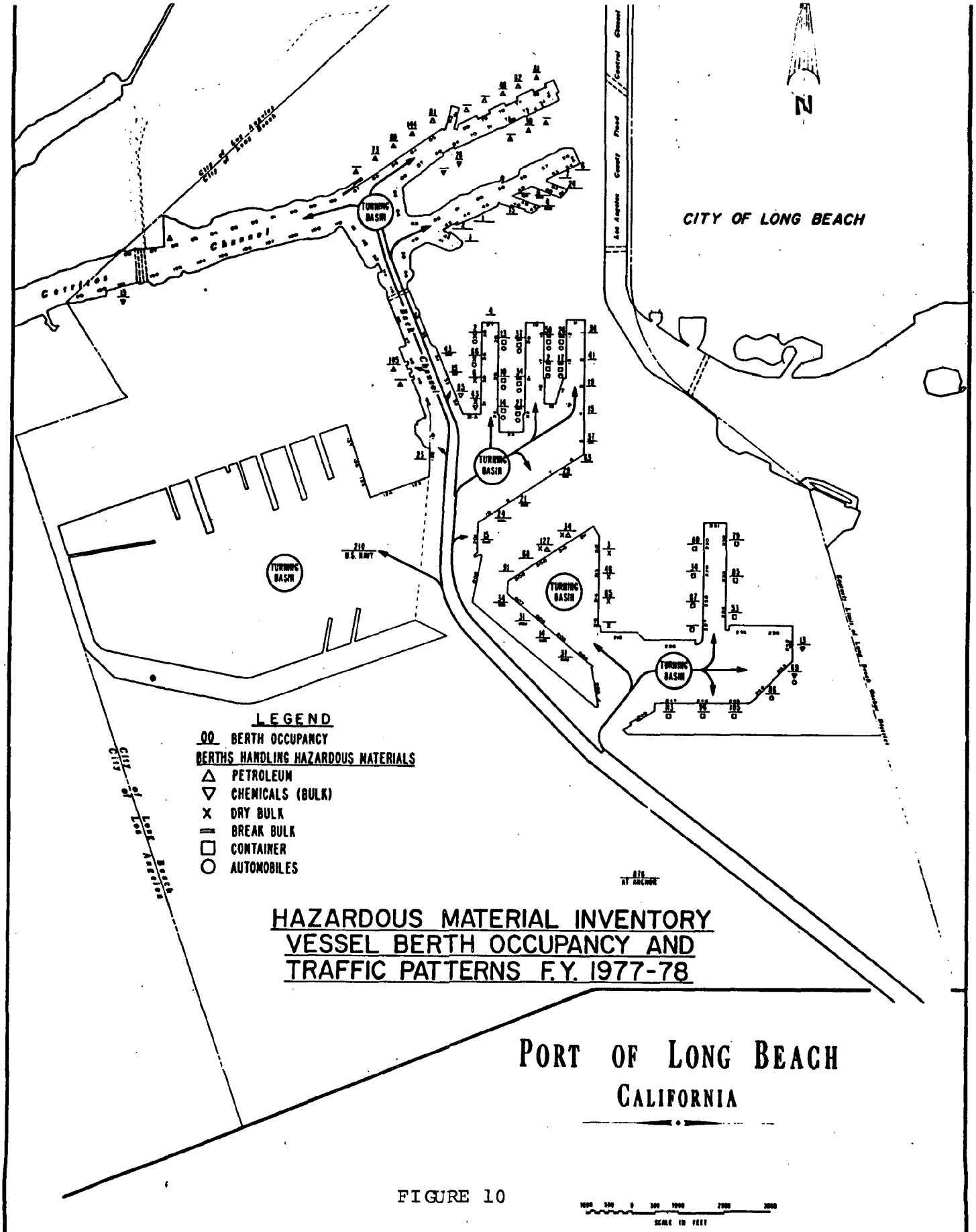
The West Harbor District experienced less than 1% of the total vessel visits. These were primarily chemical type cargo vessels.

The Federal Use District received 210 vessel visits in the 1977-1978 fiscal year according to Navy sources. Vessels which are presently stationed at the Navy Base include three yard oilers, one yard oil-gas craft, one yard water craft, three yard tug boats, approximately four target ships, two destroyers, one Landing Platform Assault and two Mine Sweepers which are among the Ocean-Naval Reserve Fleet training ships homeported at Long Beach. These represent about 5% of total vessel visits to the Port.

Table 6 illustrates the Berth Throughput Inventory. Each berth is identified as to location by district in the Harbor, operator or use, throughput range, average time of vessel at berth, average throughput range per vessel, bunker throughput range, percentage of cargo inbound or outbound, number of vessel visits, and hazardous cargo types. A legend is included which explains the ranges of values and pertinent cargo types and pertinent cargo types and abbreviations.

Table 7 illustrates the Hazardous Commodity Inventory. Bulk Hazardous commodites are identified and classified according to cargo type (ie. general cargo, dry bulk, etc...) Then the hazard class, based on DOT and IMCO classifications, of each commodity is identified. Range quantities of both inbound and outbound throughputs of each commodity are listed. Berths which typically handle the commodity are identified.

Berth numbers in tables 6 and 7 have been codified to protect the propriatary relevant to particular Port tenants.


CITY OF LONG BEACH
N
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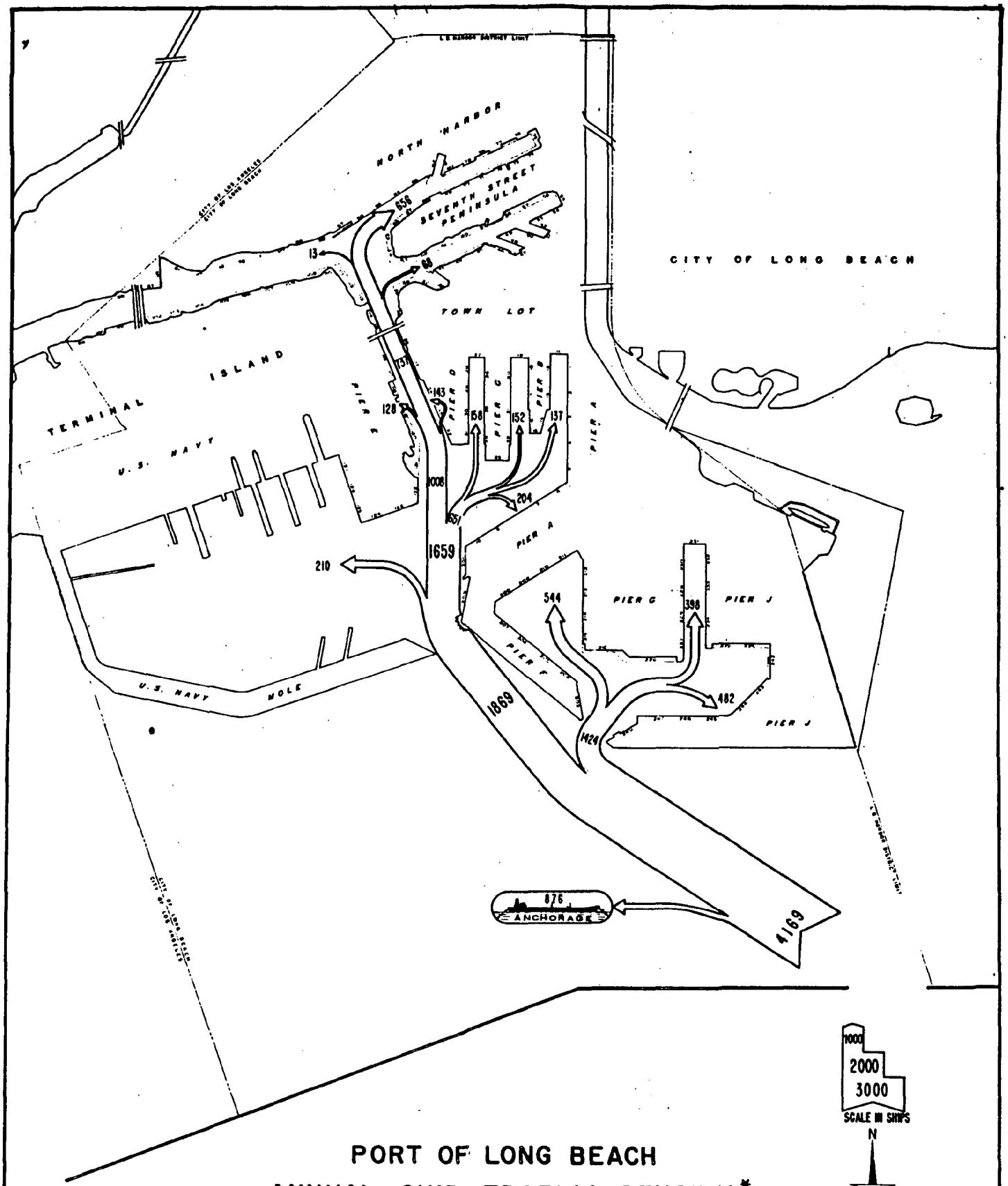
LEGEND
00 BERTH OCCUPANCY
BERTHS HANDLING HAZARDOUS MATERIALS
PETROLEUM
CHEMICALS (BULK)
DRY BULK
BREAK BULK
CONTAINER
AUTOMOBILES
HAZARDOUS MATERIAL INVENTORY
VESSEL BERTH OCCUPANCY AND
TRAFFIC PATTERNS F.Y. 1977-78
PORT OF LONG BEACH
CALIFORNIA

FIGURE 10



PORT OF LONG BEACH
ANNUAL SHIP TRAFFIC DENSITY*
INBOUND 1977-78

FIGURE 11

* INCLUDES INTRA-HARBOR MOVEMENTS

J.G.KEULER 10-20-75 HD 8-142-1

Vessel Safety

Vessel safety is the primary responsibility of the shippers and vessel crews. Both national and international laws govern vessel safety at sea. The Department of Transportation provides Guidelines and Administration over vessel safety in the United States.

The U.S. Coast Guard's jurisdiction over San Pedro Bay and the Port of Long Beach in terms of vessel related activities is governed by various volumes of the Code of Federal Regulations including CFRs 33,46 and 49. The Coast Guard has prime responsibility for overseeing port safety and security, protection of the marine environment, commercial and recreational boating safety, aids to navigation bridge enforcement of laws and treaties, and maritime search and rescue.

Under the authority of the Port and Waterways Safety Act, the Coast Guard specifies and inspects vessel navigation equipment and procedures, and may control the movement of vessels when circumstances warrant. Anchorage areas are specified, navigational aids maintained, and bridge clearance and operating procedures prescribed. Vessels and waterfront facilities are regulated and inspected, especially those dealing in hazardous materials and liquid-bulk cargoes. U.S. flag vessels also are documented, and U.S. crews and pilots are licensed.

Under the Federal Water Pollution Control Act, the Coast Guard has responsibility relative to pollution in coastal waters caused by oil and other hazardous materials. Vessels and terminals are regulated and inspected, transfers are monitored, and spill contingency plans required and approved. In the event of a spill, the Coast Guard determines the identity of the spiller (notification by the spiller is required) and monitors the clean up. If clean up efforts are unsatisfactory or the spiller cannot be immediately determined, Federal funds (subject to reimbursement) are utilized to protect the marine environment.

The Port of Long Beach receives notices from the Coast Guard of any violations which occur within its jurisdiction. The inspection records and violation reports are public record and may be obtained from the U.S. Coast Guard Marine Safety Officer in accord with the Freedom of Information Act.

In addition to the foregoing vessel safety provisions the Port utilizes Jacobsen Pilot Service to coordinate the safe movement of vessels in the Port. Special inspection procedures are available for particular types of cargo ships such as tankers, LNG and LPG vessels. See Appendix B for a more detailed illustration of pilot procedures and vessel inspection procedures.

BERTHS HANDLING HAZARDOUS MATERIALS*

PETROLEUM

ARCO - 118, 119, 76, 77, 78, 79, 80
Amorient - 83
Powerine - 72, 73, 74
Texaco - 84, 85, 86, 87
Exxon - 210, 211A
Chevron - 96 (Wharf fueling station)

CHEMICALS - (BULK)

Baker Commodities - 31, 32
National Molasses - 242, 243
Dow Chemical - 101
Proctor & Gamble - 68/69

DRY BULK

Koppel - 210, 211 (Grain)
Metropolitan Stev. - 212, 213, 214, 215
(Petroleum Coke)
28, 29, 30, 31

BREAK BULK

Open Berths - 5, 7, 33, 34, 48, 49, 50
CUT - 12, 13, 17, 18, 20, 21, 22
Cooper - 7, 9, 10, 201
Mercantile Marine - 204, 205
Cresent - 206, 207

CONTAINER

CUT - 12, 13, 17, 18, 20, 21, 22, 24, 25, 26
Sealand - 227, 228
Maersk - 229
U.S. Lines - 230
ITS - 232, 233, 234
PCT - 245, 245, 247

AUTOMOBILES

Pasha/Toyota - 243, 244, 28, 29
CUT - 12, 13, 17, 18, 20, 21, 22, 24, 25, 26

*Exclusive of Navy Berths

TABLE 5

BERTH THROUGHPUT INVENTORY*

BERTH NUMBER	BERTH THROUGHPUT (RANGE)	AVERAGE VESSEL TIME AT BERTH (RANGE)	AVERAGE VESSEL THROUGHPUT (RANGE)	BUNKER THROUGHPUT (RANGE)	CRANE IN (%)	CRANE OUT (%)	HAZARDOUS CARGO TYPE
4638	1	5	1	1	-	-	7
5048	1	5	1	1	-	-	7
7951	1	5	1	1	-	-	7
2944	6	1	9	2	99	1	7
7655	2	5	7	1	96	4	4
8342	2	4	5	1	97	3	4
1953	5	4	7	2	98	2	7
3056	2	5	6	1	99	1	7
6848	2	4	8	1	97	3	7
4965	2	1	2	1	97	3	2
8465	9	2	9	4	65	35	1
6070	7	1	6	7	15	85	1
5582	10	21	9	6	55	45	1
2776	10	2	10	6	68	32	1
8975	9	2	7	2	99	1	1
4380	10	2	9	10	77	23	1
8877	5	1	3	9	3	97	1
5491	10	2	10	8	87	13	1
7108	5	1	8	1	79	21	2

* SEE LEGEND FOR EXPLANATION OF CODES

TABLE 6-1

BERTH THROUGHPUT INVENTORY*

BERTH NUMBER	BERTH THROUGHPUT (RANGE)	AVERAGE VESSEL TIME AT BERTH (RANGE)	AVERAGE VESSEL THROUGHPUT (RANGE)	BUNKER THROUGHPUT (RANGE)	CRANE IN (%)	CRANE OUT (%)	HAZARDOUS CARGO TYPE
7125	10	2	10	9	98	2	1
6116	4	4	4	3	19	81	7
9304	5	4	8	4	92	8	4
7211	7	4	9	5	93	7	4
0510	4	4	7	3	67	33	4
4202	7	4	9	5	95	5	4
9601	8	4	9	6	95	5	4
6202	7	2	5	7	85	15	7
8201	6	1	5	81	78	22	7
1802	5	3	5	5	7	93	7
2400	5	4	6	5	17	83	7
7610	4	3	3	3	28	72	7
3697	4	4	6	3	45	55	7
4591	4	3	4	6	32	8	4
6800	5	2	5	2	92	8	7
1308	2	3	3	4	59	41	4
3012	5	5	8	4	94	6	4
6796	4	3	4	3	29	71	4,5,6
1014	2	2	2	5	1	99	4,5,6

* SEE LEGEND FOR EXPLANATION OF CODES

TABLE 6-2

BERTH THROUGHPUT INVENTORY*

BERTH NUMBER	BERTH THROUGHPUT (RANGE)	AVERAGE VESSEL TIME AT BERTH (RANGE)	AVERAGE VESSEL THROUGHPUT (RANGE)	BUNKER THROUGHPUT (RANGE)	CRANE IN (%)	CRANE OUT (%)	HAZARDOUS CARGO TYPE
5921	1	1	1	1	-	-	7
4313	1	3	3	2	0	100	4,5,6
8010	7	2	7	8	58	42	4,5,6
8912	4	3	5	7	58	42	4,5,6
3324	4	3	3	5	42	58	4,5,6
4818	2	3	2	4	33	67	4,5,6
4320	2	3	3	3	37	63	5,6
7532	2	3	4	2	60	40	5,6
8518	2	2	5	3	67	33	5,6
6721	1	5	2	1	0	100	7
7935	1	1	1	1	-	-	3,6
1330	8	2	7	5	0	100	3,6
2638	1	1	2	2	30	70	3
8023	5	3	4	5	55	56	2,3
2930	5	1	3	7	32	68	2
6327	2	2	3	3	67	33	4
7441	4	3	3	5	61	39	4
0406	8	1	6	9	78	22	1,3
7218	9	3	10	5	0	100	1,3

* SEE LEGEND FOR EXPLANATION OF CODES

TABLE 6-3

BERTH THROUGHPUT INVENTORY*

BERTH NUMBER	BERTH THROUGHPUT (RANGE)	AVERAGE VESSEL TIME AT BERTH (RANGE)	AVERAGE VESSEL THROUGHPUT (RANGE)	BUNKER THROUGHPUT (RANGE)	CRANE IN (%)	CRANE OUT (%)	HAZARDOUS CARGO TYPE
4208	1	1	1	1	[illegible]	[illegible]	3
9607	10	3	10	6	1	99	3
0806	10	3	10	8	0	100	3
7235	10	2	10	10	64	36	5
0331	6	2	7	8	52	48	5
9822	9	1	8	10	41	59	5
4228	9	2	9	9	57	43	5
7240	9	2	9	9	63	37	5
6228	8	2	8	8	56	44	5
0834	2	2	5	2	95	5	2
0637	6	2	5	8	63	37	2,6
3247	5	2	4	8	53	47	6
5250	9	1	8	10	66	34	5
9147	9	2	7	8	57	43	5
6241	9	2	7	8	54	46	5
8182	7	3	1	10	0	100	7

* SEE LEGEND FOR EXPLANATION OF CODES

TABLE 6-4

LEGEND

BERTH THROUGHPUT RANGE CODE (1000 REVENUE TONS)

1. 0-10
2. 11-25
3. 26-50
4. 51-100
5. 101-175
6. 176-260
7. 261-375
8. 376-500
9. 501-1000
10. 1001+

AVERAGE ELAPSED TIME VESSELS AT BERTH RANGE CODE (HOURS)

1. 0-24
2. 25-48
3. 49-68
4. 97-168
5. 169+

BUNKER THROUGHPUT RANGE CODE (1000 REVENUE TONS)

1. 0-1
2. 1-5
3. 5-10
4. 10-15
5. 15-20
6. 20-25
7. 25-50
8. 50-100
9. 100-150
10. 150+

AVERAGE THROUGHPUT PER VESSEL AT BERTH RANGE CODE (REVENUE TONS)

1. 0-500
2. 501-1000
3. 1001-1750
4. 1751-2500
5. 2501-3750
6. 3751-5000
7. 5001-7500
8. 7501-10,000
9. 10,000-20,000
10. 20,001+

HAZARDOUS CARGO TYPE

1. Petroleum and/or Bunkers
2. Chemicals
3. Dry Bulk
4. Break Bulk
5. Containers
6. Automobiles
7. Not Applicable
8. Defense

TABLE 6-5

HAZARDOUS COMMODITY INVENTORY*

CARGO TYPE	HAZARDOUS COMMODITY	HAZARD CLASS	INBOUND THROUGHPUT RANGE	OUTBOUND THROUGHPUT RANGE	BERTH NOTE
1	LUBE OIL ADDITIVE	ORM-C	1	2	1
1	WINE	COM. LIQ.	4	4	2
1	BEER	"	3	4	2
1	SAKI	"	1		2
1	WHISKEY	"	2	1	2
1	RAW COTTON	ORM-C	1	7	2,4
1	MANILLA HEMP	"	2	1	2,4
1	KAPOK	"	2	3	2,4
1	BURLAP	"	5	-	2,4
1	WASTE PAPER	FLAM SOLID	1	-	2,4
1	AUTOMOBILES	ORM-C	7	-	5
1	MIS. CHEMICALS	FLAM LIQUID	5	5	2,4
1	BORIC ACID	"	1	3	2,4
1	SYNTHETIC RESIN	"	1	4	2,4
1	MIXED PAINTS	"	1	2	14
1	FUEL OIL DRUMS	COM. LIQUID	-	2	14
1	LUBE OIL DRUMS	COM. LIQUID	-	3	14
1	SOLVENT DRUMS	FLAM LIQUID	-	1	"
1	CRUDE OIL DRUMS	"	-	1	"

* SEE LEGEND FOR EXPLANATION OF CODES

TABLE 7-1

HAZARDOUS COMMODITY INVENTORY*

CARGO TYPE	HAZARDOUS COMMODITY	HAZARD CLASS	INBOUND THROUGHPUT RANGE	OUTBOUND THROUGHPUT RANGE	BERTH NOTE
1	OLD CLOTHING	FLAM SOLID	1	2	2,4
1	GREASE	FLAM LIQUID	-	2	15
1	DISINFECTANTS	POISON B	-	2	2,4
1	MOLYBDENUM DRUMS	ORM-B	-	1	2,4
1	BOOK MATCHES	FLAM SOLID	-	1	2,4
2	PETROLEUM COKE	ORM-C	2	8	3,6
2	LEAD ORE	COM LIQUID	4	2	3,6
3	CAUSTIC SODA	CORROSIVE	6	-	1
3	FISH OIL	ORM-C	1	1	15
4	CRUDE OIL	FLAM LIOUID	8	7	8
4	DIESEL OIL	COM LIQUID	7	7	9
4	FUEL OIL	"	8	8	9
4	SOLVENTS	"	7	7	11
4	GASOLINE	FLAM LIQUID	8	7	10
4	LUBE OIL	COM LIQUID	6	2	15
4	NAPTHA	FLAM LIQUID	6	1	12
4	JET FUEL	"	7	5	9,12
5	BUNKER DIESEL	COM LIQUID	-	8	13
5	BUNKER OIL	"	-	8	13

* SEE LEGEND FOR EXPLANATION OF CODES

TABLE 7-2

LEGEND

CARGO TYPES

1. General Cargo
2. Dry Bulk
3. Liquid Bulk (Less Petroleum)
4. Petroleum Bulk
5. Bunkers

HAZARD CLASS

ORMB - Other regulated material capable of causing significant damage.
ORMC - Other regulated materials being unsuitable for shipments without special provisions.
COM LIQUID - Combustible Liquid with a flash point above 100°F & below 200°F.
FLAM LIQUID - Flammable Liquid with a flash point below 100°F.
FLAM SOLID - Flammable Solid which is readily ignited.
POISON B - A poison, other than Poison A & Irritant, toxic toman.

COMMODITY THROUGHPUT RANGE CODE (1000 REVENUE TONS)

1. 0-1
2. 1-5
3. 5-10
4. 10-25
5. 25-50
6. 50-100
7. 100-300
8. 300+

OWNER STATUS

H.D. - Harbor Department
P. - Private

BERTH NOTES - CODES

1. 7935,1330
2. 6796,1014,4313,8010,8912,3324 4818,4320,7532,8518
3. 4208,9607,0806,7222
4. 4591,1308
5. 0637,3247
6. 2628,8023
7. 7218
8. 7125,4380,5491,2685
9. 4380,5491,2685,8877,6070,5582 2776
10. 8465,8975,4380,8877,5491,2685
11. 0834,7108
12. 8975
13. 8462,8201
14. Container & Break Bulk
15. All Locations
16. 8975,4965

TABLE 7-3

Section 5
WATERFRONT FACILITIES SURVEY

The Port of Long Beach is one of the few major California and West Coast Ports with all berths within one to three miles of the open ocean. All berths are also within one mile of major regional and interstate non-stop freeway networks. The area of the Long Beach Harbor District is 29 square kilometers (11.2 sq. mi.). The land area of the Port occupies 11.7 square kilometers (4.5 sq. mi.). Port owned property constitutes approximately 600 hectares (1480 acres).

There are 66 operational cargo berths. Eleven piers are located within the Port, including about 13 kilometers (8.2 miles) of wharves. The Port has 12 transit sheds with a storage area of 46,699 square meters (502,676 sq. ft.). There are 162 hectares (400 acres) of asphalt paved open storage. Four container freight stations with net area of 21,725 square meters (233,850 sq. ft.) are located in the Port. The total length of rail lines in the Port is 97 kilometers (60 miles). Harbor owned railroad lines include 61 kilometers (38 miles) of rail.

The following text focuses on three general aspects of waterfront facilities:

1. An inventory of bulk petroleum and chemical berths in the Port;

2. An inventory of terminal maintenance responsibilities; and

3. A survey of terminal safety provisions.

Facilities Inventory

This section of the HMI identifies berths and associated equipment used in handling hazardous cargoes, with particular emphasis on two (2) cargo types; petroleum and liquid (Chemicals/oils) bulk. Combined, these shipments amounted to 57% of total tonnage moving through the Port during 1977-78. These commodities also represent two of the most hazardous cargo types moving through the Port and, hence become the primary focus of the Risk Management Planning process.

Petroleum Berths

Berths No. 57, 73, 76-79, 83, 84-87, 118-119 and 210 handle the transfer of petroleum bulk. Exhibits 2,4,5,6,7,9, and 10

provide detailed information on facilities and equipment used in the handling of this cargo, by berth, including terminal characteristics (if available), terminal layout, U.S. Coast Guard Waterfront Facilities Survey information and fire protection system layout. The latter information was obtained from the Coast Guard, Captain of the Port's office.

Chemical Berths

Berths 30-31, 68-69, 101 and 242 handle primarily liquid (chemical/oils) bulk commodities. Exhibits 1, 3, 8 and 11 detail information on facilities and equipment used for the handling of these cargoes, by berth, including terminal characterisics (if available), terminal layout, U.S. Coast Guard Waterfront Facilities Survey information and fire protection system layout.

BAKER COMMODITIES
BERTHS 30, 31, 32, 33
EXISTING LIQUID BULK (CHEMICAL) FACILITIES*

WHARF CHARACTERISTICS

Name and Location: Berths 30-31, Pier D - East side about 0.50 miles west of Pico Avenue

Operated By: Baker Commodities

WHARF DESCRIPTION

Length (feet):	992
Width (feet):	Open
Lighted:	Yes
Load Capacity:	750 and 2,000
Design Capacity (feet):	43
Wharf Height:	11.8
Type of Construction:	Concrete quay wall, solid fill with asphalt surface, fronted by timber fenders.
Open Storage Area (Sq. Ft.):	81,500 sq. ft.

* Used as a multi-commodity facility.
See also description for Berths 32-33

EXHIBIT 1 - Cont.

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 30 PIER NO.

LOCATION: NORTH END OF THE EAST BASIN

OWNED BY: CITY OF LONG BEACH (Name) 437-0041 (Day Phone) SAME (Night Phone)

211 MARINER, LONG BEACH (Business Address)

OPERATED BY: BAKER COMMODITIES Co. (Name) HE6-1137 (Day Phone) SAME (Night Phone)

PIER D, BERTH 30, LONG BEACH (Business Address)

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
F. PENA	SUPV.		997-9487
R. HORTON			(714) 892-5292
DOCK OFFICE			432-8727 & 432-8721

PURPOSE FOR WHICH USED: PUMPING STATION, TALLOW PRODUCTS

VESSELS ACCOMMODATED: CARGO

STEAMSHIP LINES REGULARLY HANDLED: VARIOUS

DESCRIPTION

PIER:

LENGTH OF PIER 485' WIDTH OF PIER 200'

LENGTH OF APRON 486' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 42' USABLE BERTHING SPACE 86'

HT. DECK ABOVE MLW 10' LOAD CAP. PER SQ. FT. 750lbs

TYPE OF CONSTRUCTION CONCRETE P[illegible] ASP[illegible]LT SURFACED CONCRETE DECK

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS:	No. NONE	No.	No.
TYPE OF CONSTRUCTION	N/A		
LENGTH AND WIDTH (FT)	N/A		
HEIGHT INSIDE (FT)	N/A		
TOTAL CARGO FLOOR (SQ FT)	N/A		
LOAD CAPACITY (#/ SQ FT)	N/a		

LOCATION OF AUTHORIZED PARKING N/A

BERTH 30

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE 220 AC CAPACITY 3 PHASE 60 CYCLE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT 2½"HOSE CONNECTION

CARGO HANDLING DEVICES: FORKLIFTS

ACCESS:

RAILWAY: FIVE RAILWAY TRACKS

VEHICULAR: VIA EL EMBARCADERO

SECURITY:

WATCHMAN SECURITY NONE
Type/Agency Hours

LOCATION OF WATCHMAN NONE

FENCING NONE
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED NONE

FIRE ALARMS: (NO & LOCATION) NONE

PORTABLE EXTINGUISHERS (NO.) NONE INSIDE OUTSIDE

FOAM STOCK AND EQUIPMENT NONE

FIRE HYDRANTS (NO & LOCATION) ONE LOCATED BY OVERHEAD TRUCK LOADER AT STORAGE TA

FIRE HOSE (NO. & LOCATION NONE
Outside
NONE
Inside

REMARKS:

PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-33870

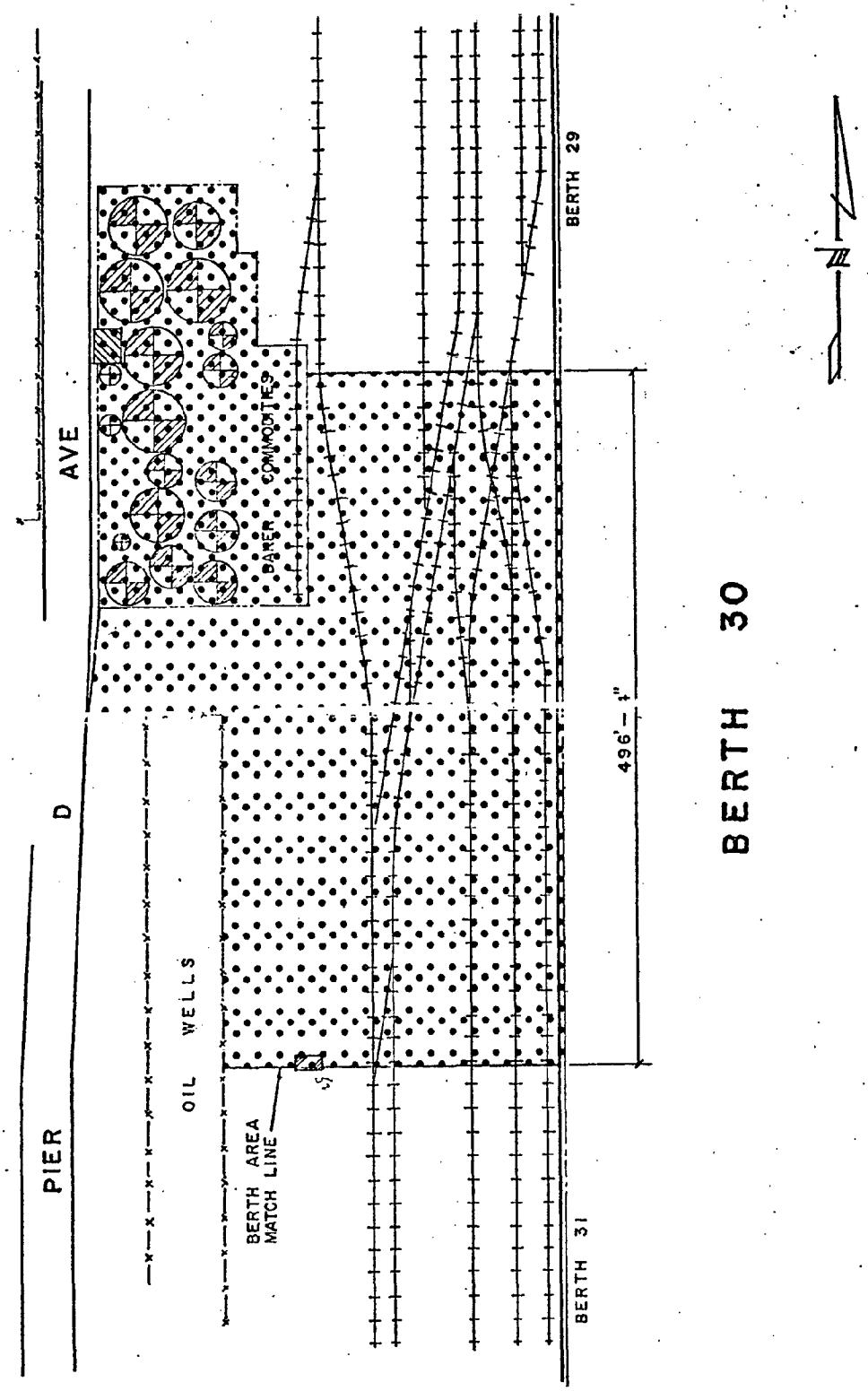

PIER
D
AVE
OIL WELLS
BERTH AREA MATCH LINE
BAKER COMMODITIES
BERTH 29
BERTH 31
496'-1"
BERTH 30

EXHIBIT 1 - Cont

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 31 PIER NO.

LOCATION: EAST BASIN PIER D

OWNED BY: CITY OF LONG BEACH 437-0041 SAME
Name Day Phone Night Phone

P.O. BOX 570, LONG BEACH
Business Address

OPERATED BY: BAKER COMMODITIES HE6-1137 SAME
Name Day Phone Night Phone

BERTH 31, PIER D, LONG BEACH
Business Address

EMERGENCY PHONE NUMBERS:

F. PENA SUPERVISOR 997-9487

R. HORTON

DOCK OFFICE 432-8727 and 432-8721
Name Position Firm Emerg. Phone

PURPOSE FOR WHICH USED: SHIPPING AND RECEIVING

VESSELS ACCOMMODATED: CARGO

STEAMSHIP LINES REGULARLY HANDLED: VARIOUS

DESCRIPTION

PIER:

LENGTH OF PIER 1,607 WIDTH OF PIER OPEN

LENGTH OF APRON 1,607 WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 34' USABLE BERTHING SPACE 1,607

HT. DECK ABOVE MLW 13' LOAD CAP. PER SQ. FT. 2,000

TYPE OF CONSTRUCTION CONCRETE BULKHEAD WITH SOLID FILL ASPHALT DECK

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS: No1 No. N/A No. N/A

TYPE OF CONSTRUCTION CONCRETE WALLS STEEL FRAMES ASPHALT FLOOR

LENGTH AND WIDTH (FT) 600x125

HEIGHT INSIDE (FT) 20'

TOTAL CARGO FLOOR (SQ FT) 40,000

LOAD CAPACITY (#/ SQ FT) 2,000

LOCATION OF AUTHORIZED PARKING NORTHWEST END OF SHED

4/1/77 REVISION

BERTH 31

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE 220 CAPACITY 3 PHASE 60 CYCLE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT 2" HOSE CONNECTIONS

CARGO HANDLING DEVICES: FORKLIFTS AND PAPER CARRIERS

ACCESS:

RAILWAY: 3 RAILWAY TRACKS

VEHICULAR: ENTRANCE FROM ELEMBARCADERO OR PIER D, AVE.

SECURITY:

WATCHMAN SECURITY CARGO PROTECTION (Type/Agency) AS REQUIRED (Hours)

LOCATION OF WATCHMAN ROVING

FENCING NONE (Type) (Area)

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED OVERHEAD AUTOMATIC HEAT ACTIVATED

FIRE ALARMS: (NO & LOCATION) 1 NORTHEAST CORNER & 1 SOUTHEAST CORNER

PORTABLE EXTINGUISHERS (NO.) 16 INSIDE 0 OUTSIDE

FOAM STOCK AND EQUIPMENT NONE

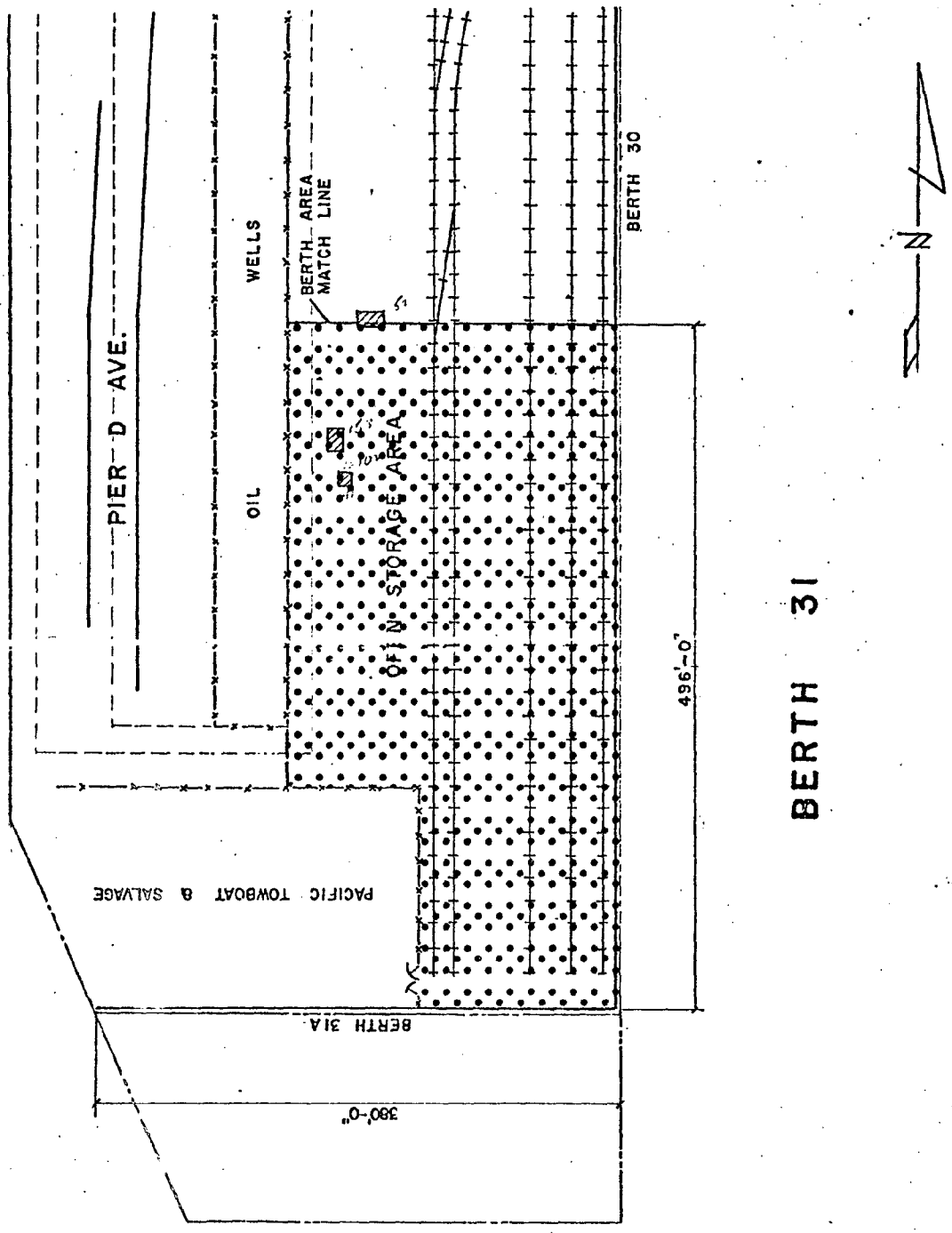
FIRE HYDRANTS (NO & LOCATION) 3(TWO AT SOUTH END ONE AT NORTH END)

FIRE HOSE (NO. & LOCATION NONE (Outside)

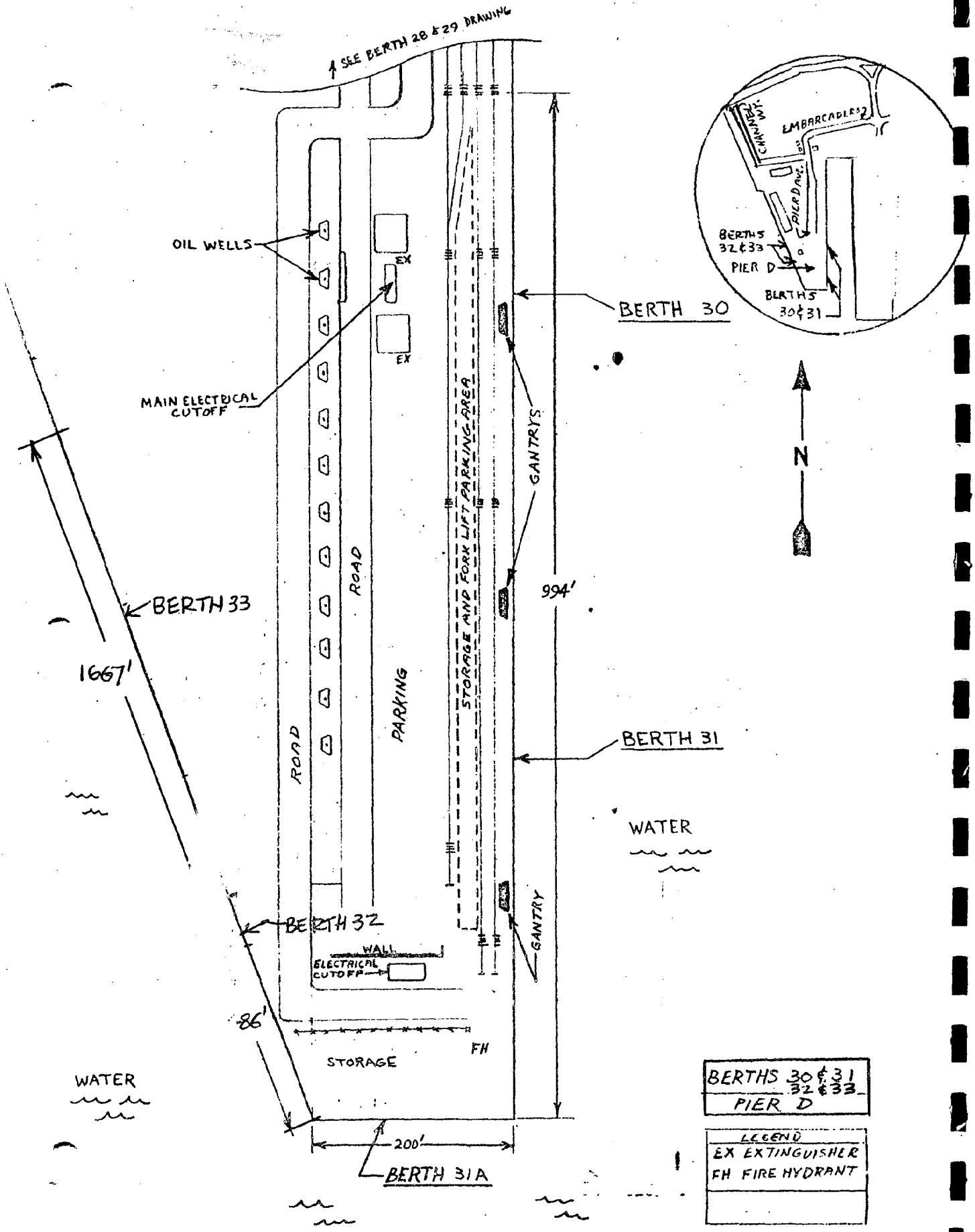
SIX (THREE ON EACH WALL) (Inside)

REMARKS:

PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-88870


PIER D AVE.
OIL WELLS
BERTH AREA MATCH LINE
OPEN STORAGE AREA
BERTH 30
496'-0"
PACIFIC TOWBOAT & SALVAGE
BERTH 31A
380'-0"
N

BERTH 31


SEE BERTH 28 & 29 DRAWING
OIL WELLS
EX
EX
MAIN ELECTRICAL CUTOFF
BERTH 30
GANTRYS
994'
BERTH 33
1667'
ROAD
PARKING
STORAGE AND FORK LIFT PARKING AREA
ROAD
BERTH 31
WATER
BERTH 32
WALL
ELECTRICAL CUTOFF
GANTRY
86'
FH
STORAGE
WATER
200'
BERTH 31A
EMBARCADERO
CANYON WAY
PIER D AVE.
BERTHS 32 & 33
PIER D
BERTHS 30 & 31
N
BERTHS 30 & 31
32 & 33
PIER D
LEGEND
EX EXTINGUISHER
FH FIRE HYDRANT

BAKER COMMODITIES
BERTHS 32, 33
EXISTING LIQUID BULK (CHEMICAL) FACILITIES

Name & Location: Berths 32-33, Pier D - West side of Pier D about 0.50 miles west of Pico Avenue

Operated by: Baker Commodities

Wharf Description

Length (ft.): 824

Width (ft.): Open

Lighted: Yes

Load Capacity (lb./sq.ft.): 750 and 2000

Design Depth: Pierhead - 36 ft.; 9 ft. out - 42

Height of Deck @ MLLW (ft.): 14.1

Type of Construction: Concrete quay wall, solid fill with asphalt surface, fronted by timber fendrs.

Open Storage Area (sq.ft.) & Location: 36,000

Mechanical Handling Facilities: Two 6" pipe lines extend from Berth 32 to five coconut oil storage tanks, with 22 coconut and tallow tanks totalling 163,200 bbls.

Highway Connections: Via Pico to Water Street, to Channel Way.

Railway Connections: Railroad tracks service the area

Water Supply : 4 - 2" water outlets @ 100 gal/min. (ea)

Electric Supply: A.C. 110 volts, single phase, 60 cycle

Fire Protection : Fire Hydrants, hose, hand extinquishers & watchmen.

EXHIBIT 1 -Con.

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 33 PIER NO. D

LOCATION: EAST BASIN, PIER D

OWNED BY: CITY OF LONG BEACH 437-0041 SAME
Name Day Phone Night Phone

P.O. BOX 570, LONG BEACH
Business Address

OPERATED BY: BAKER COMMODITITES CO. 436-1137 SAME
Name Day Phone Night Phone

PIER D, BERTH 33, LONG BEACH
Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
F. PENA	SUPV.		997-9487
R. HORTON			(714)892-5292

PURPOSE FOR WHICH USED: PUMPING STATION, TALLOW PRODUCTS

VESSELS ACCOMMODATED: CARGO

STEAMSHIP LINES REGULARLY HANDLED: VARIOUS

DESCRIPTION

PIER:

LENGTH OF PIER 1607 WIDTH OF PIER OPEN

LENGTH OF APRON 1607 WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 34 USABLE BERTHING SPACE 1607

HT. DECK ABOVE MLW 13 LOAD CAP. PER SQ. FT. 2000

TYPE OF CONSTRUCTION CONCRETE WALLS, STEEL FRAME, ASPHALT FLOOR

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS: No. 1 No. No.

TYPE OF CONSTRUCTION CONCRETE WALLS, STEEL FRAME, ASPHALT FLOOR

LENGTH AND WIDTH (FT) 600x125

HEIGHT INSIDE (FT) 20

TOTAL CARGO FLOOR (SQ FT) 40,000

LOAD CAPACITY (#/ SQ FT) 2000

LOCATION OF AUTHORIZED PARKING NORTHWEST END OF SHED

4/1/77 REVISED

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE 220 CAPACITY 3PHASE 60 CYCLE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT 2" HOSE CONNECTIONS

CARGO HANDLING DEVICES: FORKLIFTS AND PAPER CARRIERS

ACCESS:

RAILWAY: THREE RAILWAY TRACKS

VEHICULAR: VIA EL EMBARCADERO OR PIER D AVE.

SECURITY:

WATCHMAN SECURITY CARGO PROTECTION AS REQUIRED
Type/Agency Hours

LOCATION OF WATCHMAN ROVING

FENCING NONE
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED OVERHEAD AUTOMATIC HEAT ACTIVATED

FIRE ALARMS: (NO & LOCATION) 1 NORTHWEST CORNER & 1 SOUTHEAST CORNER

PORTABLE EXTINGUISHERS (NO.) 16 INSIDE NONE OUTSIDE

FOAM STOCK AND EQUIPMENT NONE

FIRE HYDRANTS (NO & LOCATION) THREE (TWO AT SOUTH END, ONE AT NORTH END)

FIRE HOSE (NO. & LOCATION NONE
Outside

SIX (THREE ON EACH WALL)
Inside

REMARKS:

PIER INSPECTOR R.H. DULIN PSC CGRG REP. 11-88870

EXHIBIT 1 -Cont.

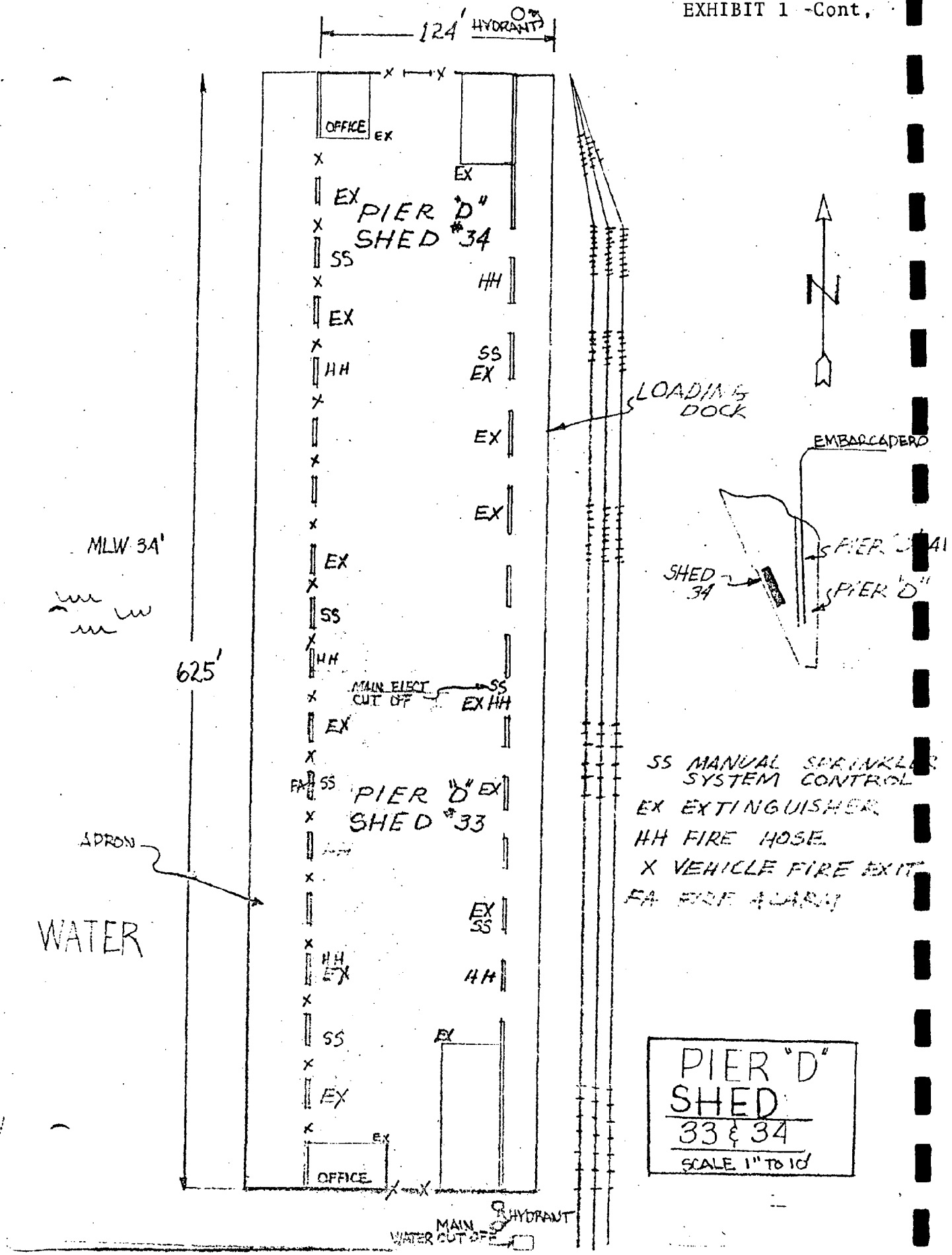


EXHIBIT 2

ARCO (STORAGE ONLY)
BERTH 57
EXISTING PETROLEUM BULK FACILITIES

EXHIBIT 2 - Cont.

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 56&57 (STORAGE ONLY) PIER NO. N/A

LOCATION: NORTH SIDE OF CHANNEL 3 , APPROX. 0.19 MILES FROM HEAD OF CHANNEL

OWNED BY: ATLANTIC RICHFIELD CO. HE6-9071 436-9074
Name Day Phone Night Phone

P. O. BOX 3124, TERMINAL ISLAND, SAN PEDRO, CA
Business Address

OPERATED BY: HEALY-TIBBETS CONSTRUCTION CO.
Name Day Phone Night Phone

Business Address

EMERGENCY PHONE NUMBERS:

DUTY FOREMAND 436-9074

Name Position Firm Emerg. Phone

PURPOSE FOR WHICH USED: BARGE STORAGE ONLY

VESSELS ACCOMMODATED:

STEAMSHIP LINES REGULARLY HANDLED: N/A

DESCRIPTION
PIER:

LENGTH OF PIER N/A WIDTH OF PIER N/A

LENGTH OF APRON 55' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 25' USABLE BERTHING SPACE 55'

HT. DECK ABOVE MLW 13' LOAD CAP. PER SQ. FT. N/A

TYPE OF CONSTRUCTION TIMBER PILE, TIMBER DECKED, OFFSHORE WHARF WITH 20X45' APPROACH TO UPPER END.

LIGHTED OR UNLIGHTED UNLIGHTED

TRANSIT SHEDS: No. N/A No. No.

TYPE OF CONSTRUCTION N/A

LENGTH AND WIDTH (FT) N/A

HEIGHT INSIDE (FT) N/A

TOTAL CARGO FLOOR (SQ FT) N/A

LOAD CAPACITY (#/ SQ FT) N/A

LOCATION OF AUTHORIZED PARKING SOUTH OFFICE, ADJ. TO BERTH 57

4/1/77 REVISED

BERTH 56&57

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE NONE CAPACITY NONE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT NONE

CARGO HANDLING DEVICES: NONE

ACCESS:

RAILWAY: NONE

VEHICULAR: ASPHALT 10' WIDE

SECURITY:

WATCHMAN SECURITY NONE
Type/Agency Hours

LOCATION OF WATCHMAN NONE

FENCING CHAINLINK
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED NONE

FIRE ALARMS: (NO & LOCATION) ONE

PORTABLE EXTINGUISHERS (NO.) NONE INSIDE 2 OUTSIDE

FOAM STOCK AND EQUIPMENT THREE 40 GAL FOAM

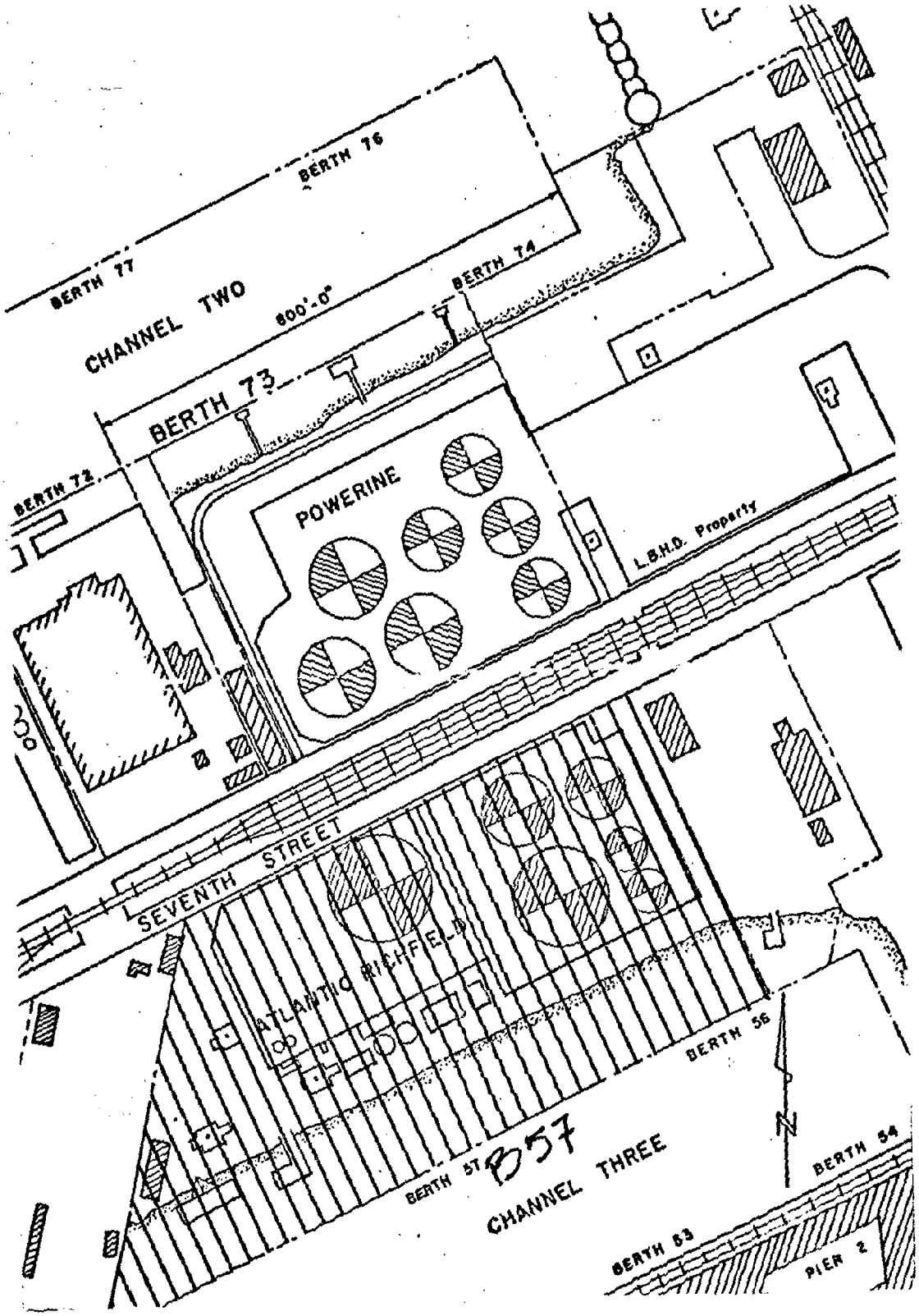
FIRE HYDRANTS (NO & LOCATION) SIX ALONG EHARF

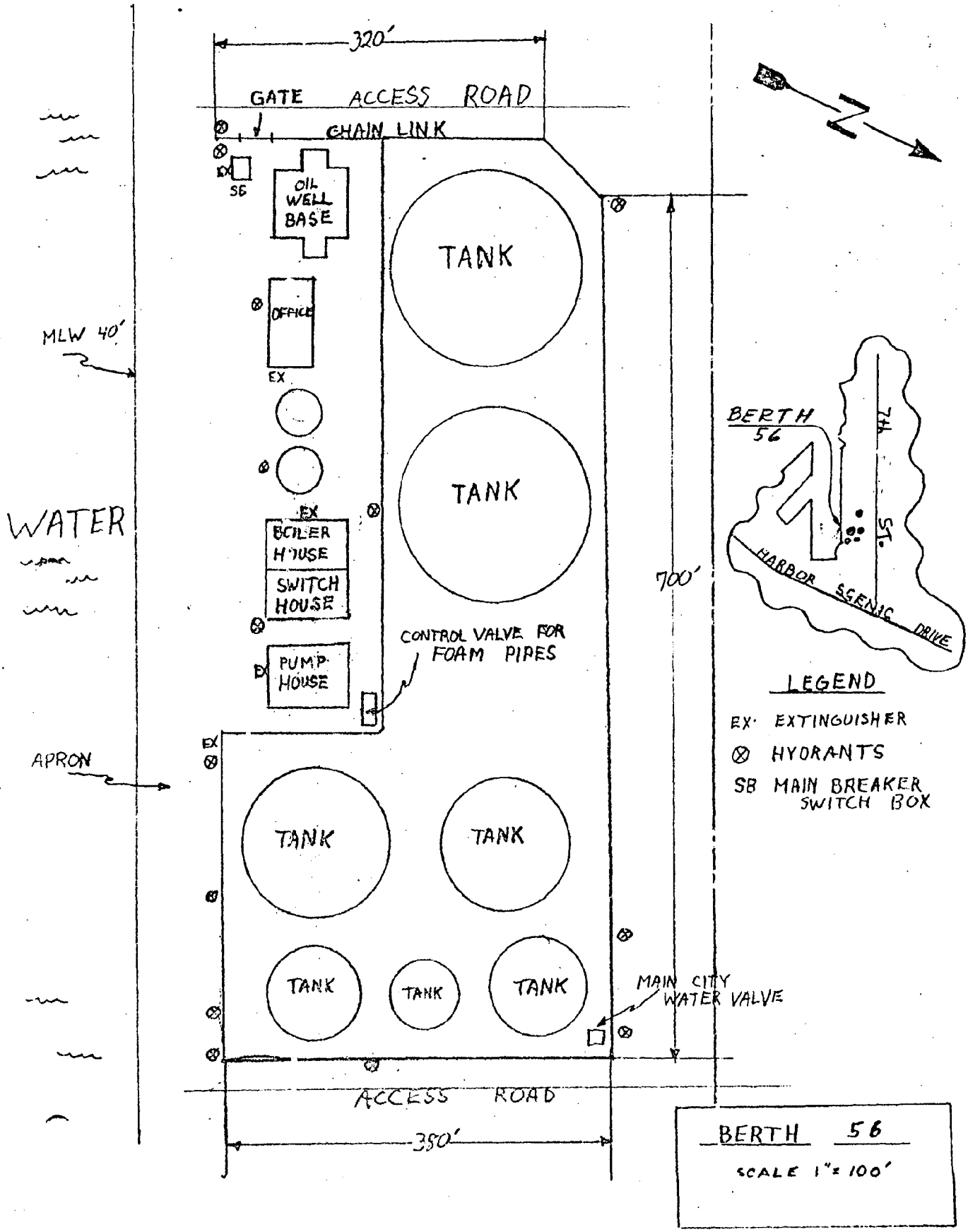
FIRE HOSE (NO. & LOCATION THREE ALONG WHARF
Outside

N/A
Inside

REMARKS: ACCORDING TO ARCO THIS IS NO LONGER AN OIL HANDLING FACILITY BUT IS USED FO
BARGE STORAGE.

PIER INSPECTOR [illegible] CGRG REP. [illegible]


BERTH 76
BERTH 77
CHANNEL TWO
800'-0"
BERTH 74
BERTH 73
BERTH 72
POWERINE
L.B.H.D. Property
SEVENTH STREET
ATLANTIC RICHFIELD
BERTH 56
BERTH 57
CHANNEL THREE
BERTH 54
BERTH 53
PIER 2
N


320'
GATE
ACCESS ROAD
CHAIN LINK
SB
OIL WELL BASE
TANK
OFFICE
EX
MLW 40'
EX
TANK
WATER
BOILER HOUSE
SWITCH HOUSE
700'
CONTROL VALVE FOR FOAM PIPES
PUMP HOUSE
APRON
TANK
TANK
TANK
TANK
TANK
MAIN CITY WATER VALVE
ACCESS ROAD
350'
BERTH 56
74'
57'
HARBOR SCENIC DRIVE
LEGEND
EX· EXTINGUISHER
HYDRANTS
SB MAIN BREAKER SWITCH BOX
BERTH 56
SCALE 1" = 100'

ORIGINAL

EXHIBIT 3

PROCTER & GAMBLE
BERTHS 68-70
EXISTING LIQUID BULK (CHEMICAL) FACILITIES

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 68 -70 PIER NO. N/A

LOCATION: SOUTH SIDE CHANNEL 2 LONG BEACH HARBOR

OWNED BY: PROCTOR AND GAMBLE MFG. CO. 432-6981
Name Day Phone Night Phone

1601 W. 7TH STREET, LONG BEACH
Business Address

OPERATED BY: SAME AS ABOVE
Name Day Phone Night Phone

Business Address

EMERGENCY PHONE NUMBERS:

R. L. NELSON PLANT MGR. PROCTOR & GAMBLE (714) 846-4942

C. A. DITLEUSEN TECH. ENG. PROCTOR & GAMBLE 894-6785
Name Position Firm Emerg. Phone

PURPOSE FOR WHICH USED: RECIEPT OF VEGETABLE OIL, CAUSTIC SODA, ETC.

VESSELS ACCOMMODATED: N/A

STEAMSHIP LINES REGULARLY HANDLED: N/A

DESCRIPTION

PIER:

LENGTH OF PIER 285' WIDTH OF PIER 40'

LENGTH OF APRON 285' WIDTH OF APRON 35'

DEPTH ALONGSIDE (MLW) 40' USABLE BERTHING SPACE 745'

HT. DECK ABOVE MLW N/A LOAD CAP. PER SQ. FT. 250'

TYPE OF CONSTRUCTION CONCRETE WALLS, ASPHALT SURFACED

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS: No. NONE No. No.

TYPE OF CONSTRUCTION NONE

LENGTH AND WIDTH (FT) NONE

HEIGHT INSIDE (FT) NONE

TOTAL CARGO FLOOR (SQ FT) NONE

LOAD CAPACITY (#/ SQ FT) NONE

LOCATION OF AUTHORIZED PARKING N/A

4/1/77 REVISED

BERTH 68-70

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE NONE CAPACITY N/A

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT NONE

CARGO HANDLING DEVICES: UNLOADING MACHINE

ACCESS:

RAILWAY: YES, CONNECT WITH SOUTHERN PACIFIC CO.

VEHICULAR: VIA W. 7th STREET

SECURITY:

WATCHMAN SECURITY N/A
Type/Agency Hours

LOCATION OF WATCHMAN N/A

FENCING N/A
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED HYDRANTS ONLY

FIRE ALARMS: (NO & LOCATION) N/A

PORTABLE EXTINGUISHERS (NO.) N/A INSIDE OUTSIDE

FOAM STOCK AND EQUIPMENT N/A

FIRE HYDRANTS (NO & LOCATION) N/A

FIRE HOSE (NO. & LOCATION N/A
Outside
N/A
Inside

REMARKS:

PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-88870

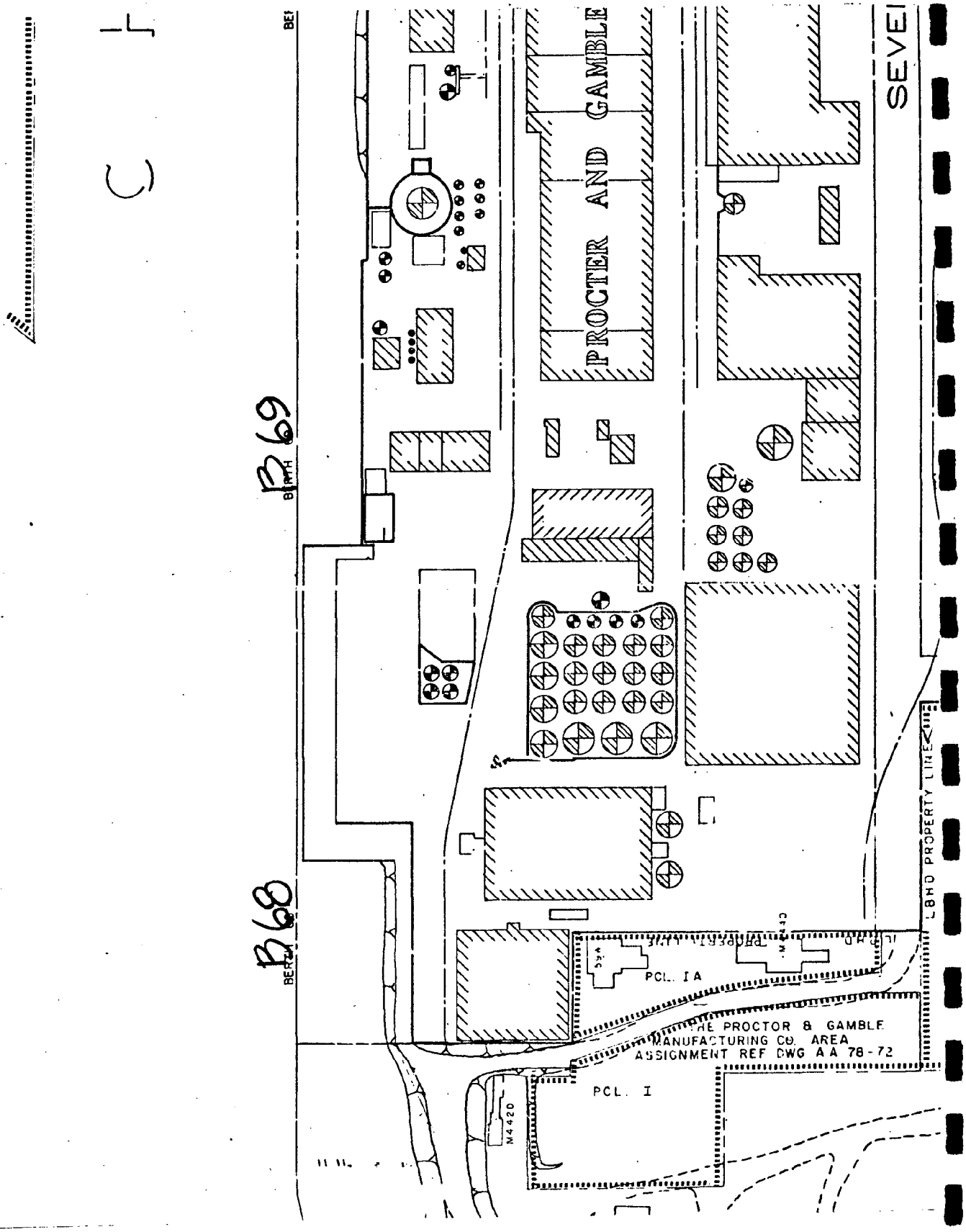
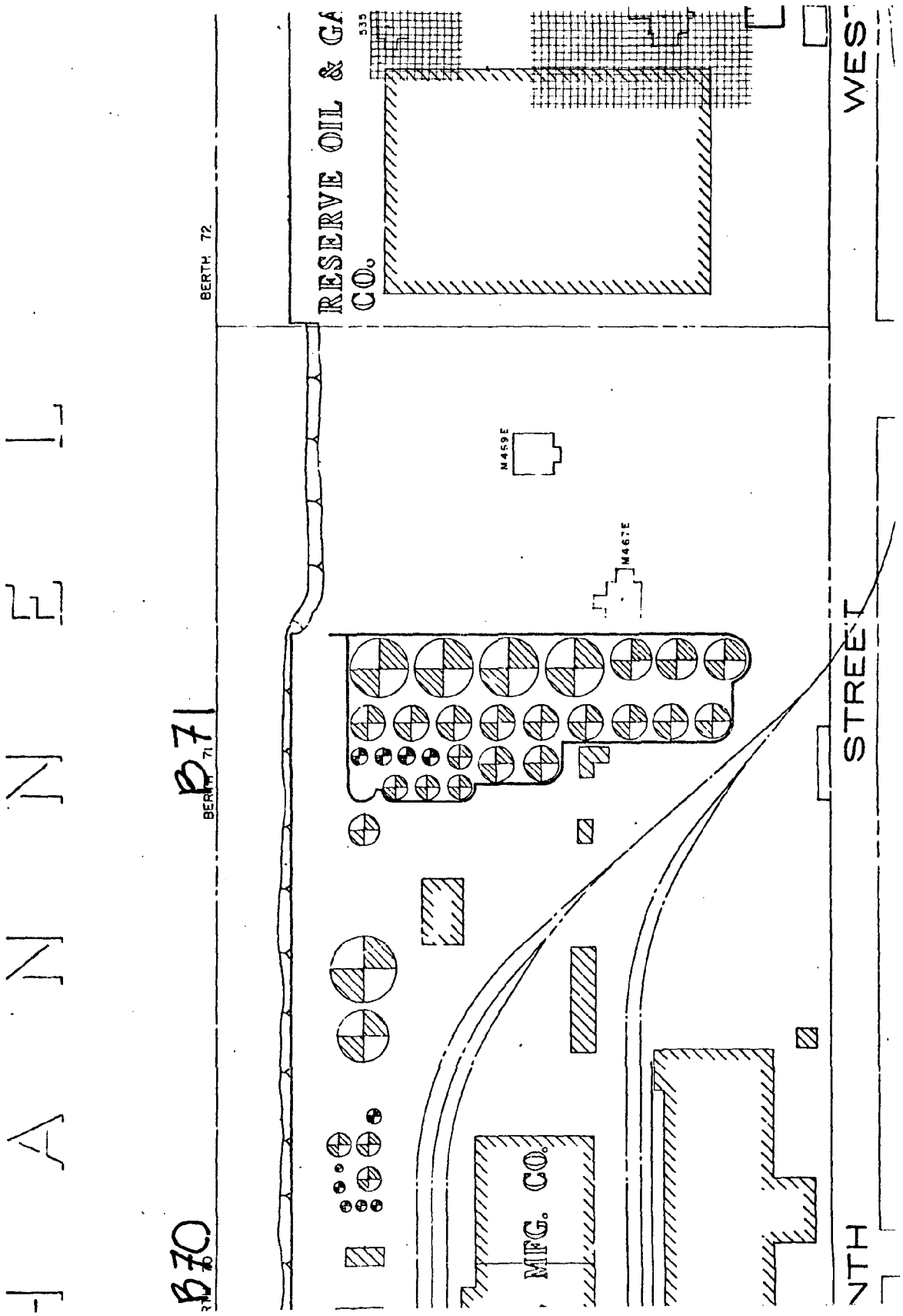
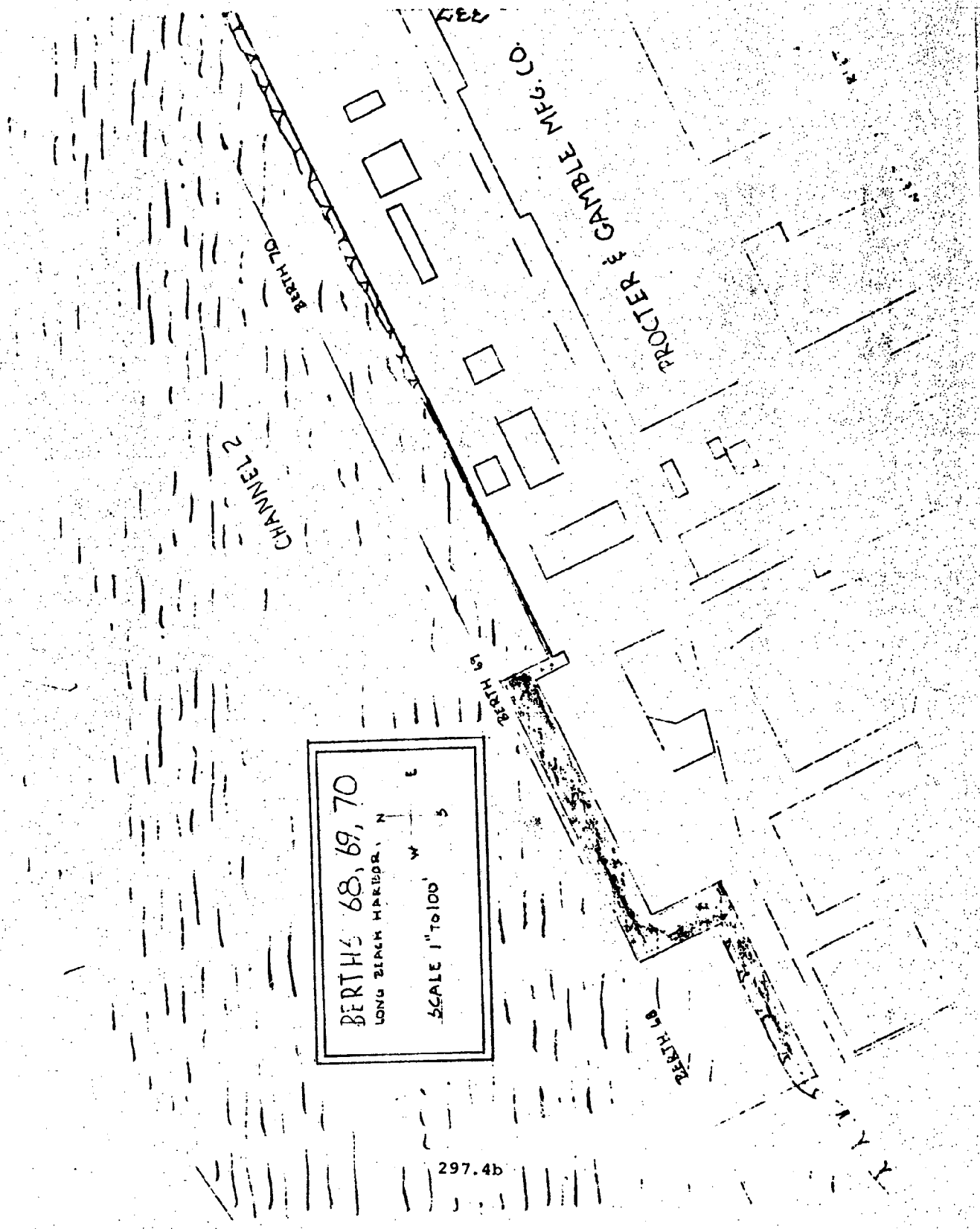

PROCTER AND GAMBLE
SEVE
B69
B68
PCL. IA
THE PROCTOR & GAMBLE
MANUFACTURING CO. AREA
ASSIGNMENT REF DWG A A 78-72
PCL. I
M4420
LBHD PROPERTY LINE

EXHIBIT 3 - Cont.




PROCTER & GAMBLE MFG. CO.
BERTH 70
CHANNEL 2
BERTH 69
BERTH 68
297.4b
BERTHS 68, 69, 70
LONG BEACH HARBOR
SCALE 1" TO 100'
N
W
E
S

POWERINE BERTH 73

EXHIBIT 4

EXISTING PETROLEUM FACILITIES

WHARF CHARACTERISTICS

Numbers of berths	1
Length of berth(s) (ft)	800
Depth alongside wharf (ft)	36 (Maintenance Dredge to 40)
No. of cargo transfer points to ship	2
Size of connections (in)	6" & 8"
Maximum discharge rate (bbl/hr)	6"-15,000 8"-24,000

TERMINAL CHARACTERISTICS

Berth backland (acres)	8
Crude storage capacity (bbl)	572,000
Refined storage capacity (bbl)	None
Distance to refinery (mi)	26
Number of pipelines	2
Size of pipeline(s) to refinery (in)	6" & 8"
Maximum pumping rate to refinery (bbl/hr)	6"-750 8"-1300
Ownership of facilities	Private wharf; Tank farm partially municipal
Leasing agreements	Part of the tank farm is leased

EXHIBIT 4 - Cont.

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 73 PIER NO.

LOCATION: APPROX. 0.08 MILE FROM HEAD OF CHANNEL 2

OWNED BY: RESERVE OIL & GAS CO. 626-4108
Name Day Phone Night Phone

550 S. FLOWER, LOS ANGELES, CALIFORNIA
Business Address

OPERATED BY: POWERINE OIL CO 432-3327 432-7327
Name Day Phone Night Phone

1405 W. 7th STREET, LONG BEACH, CA
Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
G. LITCHETT	FOREMAN		925-1138
BILL BURKE	PIPELINE MGR.		944-6111
BOB HUNTER			925-0258

PURPOSE FOR WHICH USED: RECEIPT OF PETROLEUM PRODUCTS

VESSELS ACCOMMODATED:

STEAMSHIP LINES REGULARLY HANDLED: ALL

DESCRIPTION

PIER:

LENGTH OF PIER N/A WIDTH OF PIER N/A

LENGTH OF APRON 559' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 36' USABLE BERTHING SPACE 350'

HT. DECK ABOVE MLW 12' LOAD CAP. PER SQ. FT. 500LBS

TYPE OF CONSTRUCTION CONCRETE PILE, CONCRETE DECKED, OFFSHORE LOADING PLATFORM WITH 60' by 6' TIMBER APPROACH, TIMBER FENDER SYSTEM, 2 TIMBER PILE, CONCRETE DECKED BREASTING DOLPHINS IN LINE WITH FACE.

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS: No. N/A No. No.

TYPE OF CONSTRUCTION N/A

LENGTH AND WIDTH (FT) N/A

HEIGHT INSIDE (FT) N/A

TOTAL CARGO FLOOR (SQ FT) N/A

LOAD CAPACITY (#/ SQ FT) N/A

LOCATION OF AUTHORIZED PARKING WEST END OF FIREWALL, BETWEEN DOCK & FIREWALL

4/1/77 REVISED

BERTH 73

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE AC11D SINGLE PHASE CAPACITY 60 CYCLE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT THROUGH 2" LINES

CARGO HANDLING DEVICES: ELECTRIC HOS HANDLING MASTS AND BOOM DERRICKS, EACH WITH 24' BOOMS

ACCESS:

RAILWAY: NONE

VEHICULAR: VIA WEST 7th ST. ASPHALT 40' WIDE, FM PICO AVE.&LB FWY

SECURITY:

WATCHMAN SECURITY FOX (Type/Agency) DURING LOADING TIMES ONLY (Hours)

LOCATION OF WATCHMAN MAIN GATE

FENCING (Type) CHAINLINK CONCRETE WALL (Area)

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED N/A

FIRE ALARMS: (NO & LOCATION) NONE

PORTABLE EXTINGUISHERS (NO.) N/A INSIDE 3 OUTSIDE

FOAM STOCK AND EQUIPMENT FOAM SYSTEM, WATER PUMP, FIRE CONNECTIONS, 2 MONITORS HYDRANTS AND HOSE

FIRE HYDRANTS (NO & LOCATION) SEE DIAGRAM

FIRE HOSE (NO. & LOCATION NONE (Outside)

N/A (Inside)

REMARKS: 2-10", 1-8" and 3-6" PIPELINES EXTEND FROM LOADING PLATFORM TO 9 STEEL STRONGS TANKS, TOTAL CAP. 575,000 BARRELS. ALSO PIPELINES EXTEND TO BERTHS A,B,C,D FOR SUPPLYING BUNKER FUEL TO VESSELS MOORED ALONGSIDE.

PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-88870

EXHIBIT 4 - Cont.

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 74 PIER NO.

LOCATION: APPROX. 0.08 MILES FROM HEAD OF CHANNEL2

OWNED BY: CITY OF LONG BEACH 437-0041 SAME
Name Day Phone Night Phone

PO BOX 570 LONG BEACH, CA
Business Address

OPERATED BY: POWERLINE OIL CO. 432-3327 432-7327
Name Day Phone Night Phone

1405 WEST 7th ST., LONG BEACH, CA
Business Address

EMERGENCY PHONE NUMBERS:

G. LITCHETT 925-1138

BILL BURKE PIPELINE MGR. 944-6111

BOB HUNTER FOREMEN 925-0258
Name Position Firm Emerg. Phone

PURPOSE FOR WHICH USED: RECEIPT OF CRUDE OIL & PETROLEUM PRODUCTS

VESSELS ACCOMMODATED: oil

STEAMSHIP LINES REGULARLY HANDLED: ALL

DESCRIPTION
PIER:

LENGTH OF PIER N/A WIDTH OF PIER N/A

LENGTH OF APRON 559' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 36' USABLE BERTHING SPACE 350'

HT. DECK ABOVE MLW 12' LOAD CAP. PER SQ. FT. 500LBS

TYPE OF CONSTRUCTION CONCRETE PILE, CONCRETE DECKED, OFFSHORE LOADING PLATFORM WITH 60'X6' TIMBER APPROACH. TIMBER FENDER SYSTEM, 2 TIMBER PILE, CONCRETE DECKED BREASTING DOLPHINS IN LINE WITH FACE.

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS: No. N/A No. No.

TYPE OF CONSTRUCTION N/A

LENGTH AND WIDTH (FT) N/A

HEIGHT INSIDE (FT) N/A

TOTAL CARGO FLOOR (SQ FT) N/A

LOAD CAPACITY (#/ SQ FT) N/A

LOCATION OF AUTHORIZED PARKING WEST END OF FIREWALL, BETWEEN DOCK AND FIREWALL

4/1/77 REVISED

BERTH 74

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE AC110 CAPACITY 60 CYCLE SINGLE PHASE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT THROUGH 2" LINES

CARGO HANDLING DEVICES: NONE

ACCESS:

RAILWAY: NONE

VEHICULAR: VIA W. 7th ST., ASPHALT 40' WIDE FM PICO AVE. & LB FWY

SECURITY:

WATCHMAN SECURITY IMPERIAL SECURITY (Type/Agency) DURING LOADING TIMES ONLY (Hours)

LOCATION OF WATCHMAN MAIN GATE

FENCING GATE ENTRANCE, CHAINLINK, CONCRETE FIREWALL (Type) (Area)

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED N/A

FIRE ALARMS: (NO & LOCATION) NONE

PORTABLE EXTINGUISHERS (NO.) N/A INSIDE 3 OUTSIDE

FOAM STOCK AND EQUIPMENT FOAM SYSTEM, WATER PUMP, FIRE BOAT CONNECTIONS 2 MONITORS, HYDRANTS AND HOSE

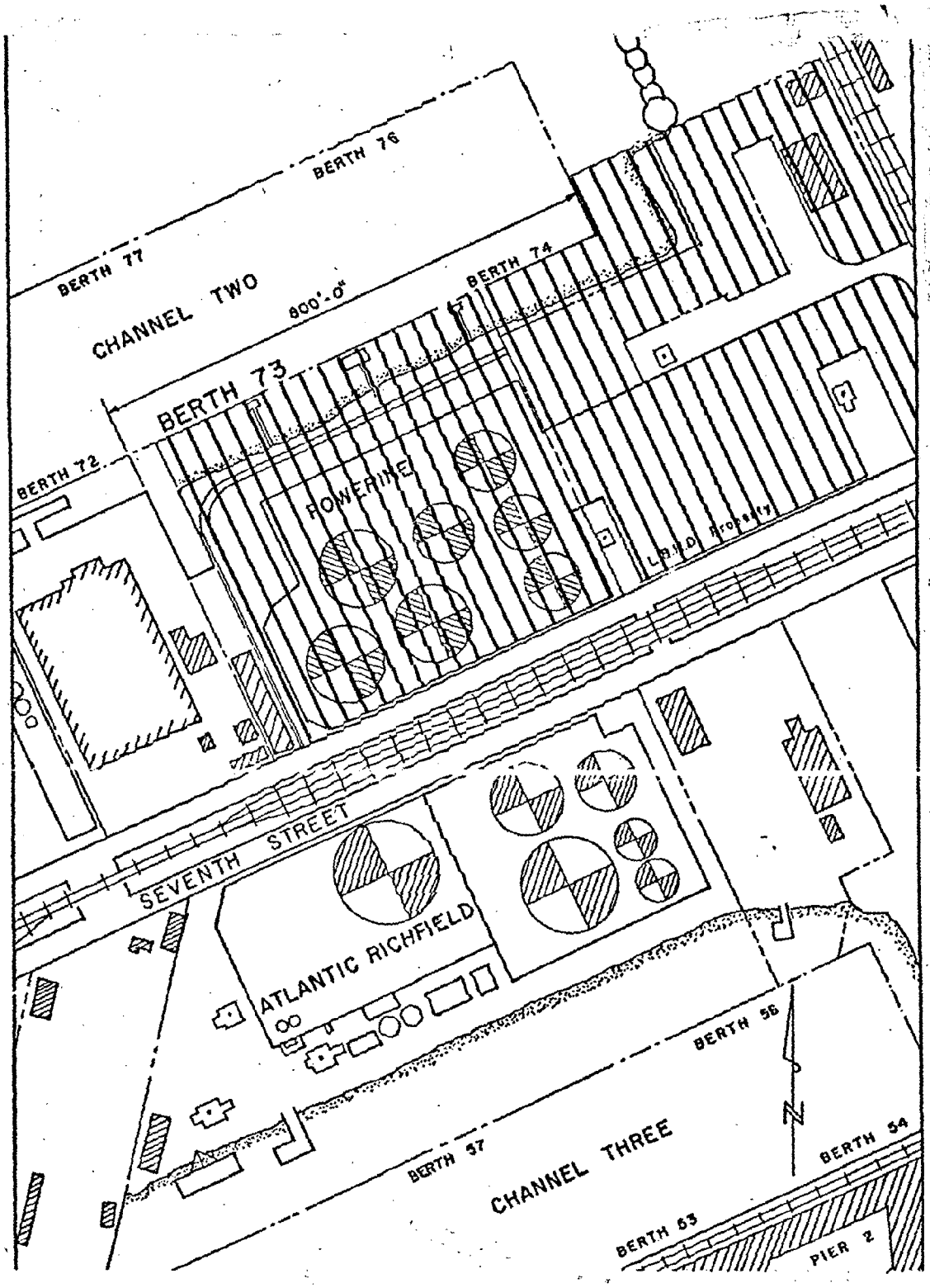
FIRE HYDRANTS (NO & LOCATION) 4 (SEE DIAGRAM)

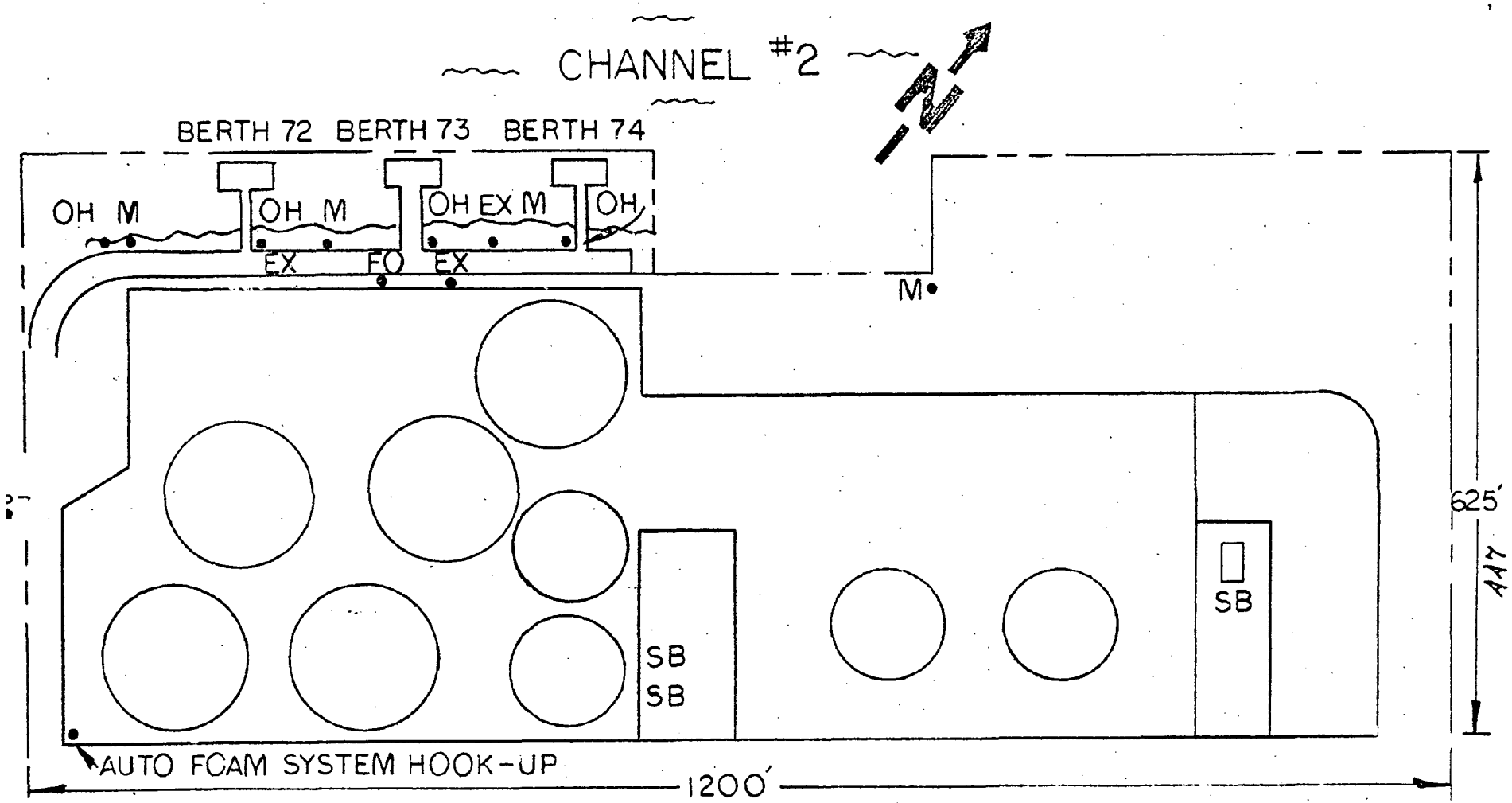
FIRE HOSE (NO. & LOCATION none (Outside)

N/A (Inside)

REMARKS: 2-10", 1-8" and 3-6" PIPELINES EXTEND FROM LOADING PLATFORM TO 9 STEEL STORAGE TANKS, TOTAL CAPACITY 575,000 BARRELS, ALSO PIPELINE EXTEND TO BERTHS A,B,C,D FOR SUPPLYING BUNKER FUEL TO VESSELS MOORED ALONGSIDE.

PIER INSPECTOR R.H. DULIN PSC CGRG REP. 11-20870


BERTH 76
BERTH 77
CHANNEL TWO
800'-0"
BERTH 74
BERTH 73
BERTH 72
POWERINE
LAND PROPERTY
SEVENTH STREET
ATLANTIC RICHFIELD
BERTH 56
N
BERTH 57
CHANNEL THREE
BERTH 54
BERTH 53
PIER 2



LEGEND

SS = MANUAL SPRINKLER SYSTEM CONTROL
FA = FIRE ALARM
EX = EXTINGUISHER
HH = FIRE HOSE & HYDRANT
X = VEHICLE FIRE EXIT
FO = FOAM EQUIPMENT
PS = PUMP SWITCH
EF = EMERG FUEL SHUT OFF

OH = OUTSIDE HYDRANT
SB = MAIN BREAKER SWITCH BOX

M = MONITOR
SCALE: 1" = 125'

EXHIBIT 4 - Cont.

EXHIBIT 5

ARCO BERTHS 76-79

TERMINAL TWO

EXISTING PETROLEUM FACILITIES

WHARF CHARACTERISTICS

Numbers of berths	2 or 3 depending on tanker size
Length of berth(s) (ft)	2190
Depth alongside wharf (ft)	40
No. of cargo transfer points to ship	9
Size of connections (in)	Ranging in size from 6" to 16"
Maximum discharge rate (bbl/hr)	30,000 maximum 6" - 1500 14" - 15,000

TERMINAL CHARACTERISTICS

Berth backland (acres)	20 Ac.
Crude storage capacity (bbl)	850,000
Refined storage capacity (bbl)	1,166,000 for refined at Terminal Two plus 500,000 for either crude or refined at Terminal Three on 7th Street
Distance to refinery (mi)	3.5
Number of pipelines	3
Size of pipeline(s) to refinery (in)	10" 12" & 14" also 2-14" & 1-8" to Terminal Three
Maximum pumping rate to refinery (bbl/hr)	5,000 also pumping rate to 7th is 10,000 max.
Ownership of facilities	Part municipal, part private
Leasing agreements	Lease on portion municipal owned

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 76 (ARCO Terminal 2) PIER NO.

LOCATION: NEAR HEAD OF CHANNEL 2

OWNED BY: ATLANTIC RICHFIELD (Name) 432-5701 (Day Phone) 432-8927 (Night Phone)

1300 W. 8th ST., LONG BEACH, 90813 (Business Address)

OPERATED BY: Atlantic Richfield (Name) 436-9071 (Day Phone) 436-9074 (Night Phone)

1300 W. 8th ST., LONG BEACH, CA 90813 (Business Address)

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
A. R. WESSLEN	SUPT OF OPS	ATLANTIC RICH.	(213) 596-2021
J. R. GEARING	SUPV. OF OPS		(714) 527-2082
FOREMAN ON DUTY		" "	(213) 436-9074

PURPOSE FOR WHICH USED: RECIEPT OF CRUDE OIL & REFINED PRODUCTS

VESSELS ACCOMMODATED: 4 OIL TANKERS

STEAMSHIP LINES REGULARLY HANDLED: RICHDIELD, HEN.-INTERNATIONSL, [illegible]

DESCRIPTION

PIER:

LENGTH OF PIER 300' WIDTH OF PIER OPEN

LENGTH OF APRON 300' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 40' USABLE BERTHING SPACE 300'

HT. DECK ABOVE MLW 14' LOAD CAP. PER SQ. FT. 250LBS

TYPE OF CONSTRUCTION CONCRETE PILE, CONCRETE DECKED, MARGINAL OFFSHORE WHARF WITH TWO 31' WIDE APPROACHES AND 3 PIPELINE TRESTLES EXTENDING FROM A STEEL SHEET PILE, CELLULAR BULKHEAD WITH SOLID FILL

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS:	No. N/A	No.	No.
TYPE OF CONSTRUCTION	N/A		
LENGTH AND WIDTH (FT)	N/A		
HEIGHT INSIDE (FT)	N/A		
TOTAL CARGO FLOOR (SQ FT)	N/A		
LOAD CAPACITY (#/ SQ FT)	N/A		

LOCATION OF AUTHORIZED PARKING ON EAST SIDE OF MAIN BUILDING NEAR ENTRANCE

BERTH 76

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE NONE CAPACITY NONE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT THROUGH 3" LINE

CARGO HANDLING DEVICES: 6-8" HYDRAULIC OPERATED MARINE SWIVEL-JOINTED LOADING ARMS MOUNTED ON ELEVATED STEEL STRUCTURE ON WHARF AND 2 PNEUMATIC OPERATED MAST & BOOM CRANES WITH 27' BOOMS FOR HANDLING HOSES & SUPPLIES.

ACCESS:

RAILWAY: NONE

VEHICULAR: VIA W. 8th ST., ASPHALT 48' WIDE, FM PICO AVE., & LB FWY

SECURITY:

WATCHMAN SECURITY COMPANY WATCHMAN/AMERICAN PLANT SECURITY (Type/Agency) SIXTEEN (Hours) HOURS

LOCATION OF WATCHMAN ROVING & GATE WATCH

FENCING CHAINLINK AROUND ENTIRE FACILITY (Type) (Area)

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED N/A

FIRE ALARMS: (NO & LOCATION) 16 THROUGHOUT YD(SEE DIAGRAM)

PORTABLE EXTINGUISHERS (NO.) PORTABLE DRY CHEMICAL INSIDE 350 LBS ALL SITES OUTSIDE

FOAM STOCK AND EQUIPMENT PORTABLE 150 LB. FOAM APPLIANCE/ FOAM EQUIP. MAIN GATE ENTRANCE

FIRE HYDRANTS (NO & LOCATION) 35 THROUGHOUT YD(SEE DIAGRAM)

FIRE HOSE (NO. & LOCATION 9 PLUS PORTABLE UNITS, THROUGHOUT YD (SEE DIAGRAM)
Outside
N/A
Inside

REMARKS: 2-12", 7-8", 5-6" PIPELINES EXTEND FM WHARF TO 33 STEEL STORAGE TANKS IN REAR OF REFINERY NOS. 58, 59, &60, TOTAL CAP. 1,800,000 BARRELS, TANKS ARE ALSO CONNECTED BY PIPELINES WITH 6 STEEL STORAGE TANKS, TOTAL CAP. 400,000 BARRELS, LOCATED IN REAR OF BERTH 57 ON CHANNEL 3. FACE OF WHARVES ARE IN LINE AND PROVIDE FOR A TOTAL OF 1,645' OF BERTHING SPACE.

PIER INSPECTOR R.H. DULIN PSC CGRG REP. 11-88670

EXHIBIT 5 - Cont.

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 77 (ARCO TERMINAL #2) PIER NO.

LOCATION: APPRX. 0.16 MILE FM HEAD OF CHANNEL 2

OWNED BY: CITY OF LONG BEACH
Name | Day Phone | Night Phone

Business Address

OPERATED BY: ATLANTIC RICHFIELD 436-9071 436-9074
Name | Day Phone | Night Phone

1300 W. 8th ST., LONG BEACH, CA 90813
Business Address

EMERGENCY PHONE NUMBERS:

A. R. WESSLEN	SUPT.OF OPS	ATLANTIC RICH.	(213) 596-2021
J. GEARING	SUPV. OF OPS		(714) 527-2082
FOREMAN ON DUTY		" "	(213) 436-9074
Name	Position	Firm	Emerg. Phone

PURPOSE FOR WHICH USED: RECEIPT OF CRUDE OIL & REFINED PRODUCTS

VESSELS ACCOMMODATED: 4

STEAMSHIP LINES REGULARLY HANDLED: RICHFIELD, HEND.-INTERNATIONSL, ATLAS STEAMSHIP CO

DESCRIPTION

PIER:

LENGTH OF PIER N/A WIDTH OF PIER N/A

LENGTH OF APRON 300' WIDTH OF APRON open

DEPTH ALONGSIDE (MLW) 43' USABLE BERTHING SPACE 300'

HT. DECK ABOVE MLW 14' LOAD CAP. PER SQ. FT. 250LBS

TYPE OF CONSTRUCTION CONCRETE PILE, CONCRETE DECKED, MARGINAL OFFSHORE WHARF WITH TWO 31' WIDE APPROACHES & 3 PIPELINE TRESTLES EXTENDING FROM A STEEL SHEET PILE, CELLULAR BULKHEAD WITH SOILD FILL.

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS:	No. N/A	No. N/A	No. N/A
TYPE OF CONSTRUCTION	N/A		
LENGTH AND WIDTH (FT)	N/A		
HEIGHT INSIDE (FT)	N/A		
TOTAL CARGO FLOOR (SQ FT)	N/A		
LOAD CAPACITY (#/ SQ FT)	N/A		

LOCATION OF AUTHORIZED PARKING ON EAST SIDE OF MAIN BUILDING NEAR ENTRANCE

BERTH 77

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE NONE CAPACITY NONE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT THROUGH 3" LINES

CARGO HANDLING DEVICES: 6-8", HYDRAULIC OPERATED, SWIVEL-JOINTED LOADING ARMS MOUNTED ON ELEVATED STEEL STRUCTURES ON WHARF. TWO PNEUMATIC OPERATED MAST & BOOM CRANES WITH 27' BOOMS FOR HANDLING HOSES & SUPPLIES.

ACCESS:

RAILWAY: NONE

VEHICULAR: VIA W. 8TH ST., 48' WIDE, FM PICO AVE., & LB FWY

SECURITY:

WATCHMAN SECURITY COMPANY WATCHMAN/AMERICAN PLANT SECURITY SIXTEEN HOURS
Type/Agency Hours

LOCATION OF WATCHMAN ROVING & GATE WATCH

FENCING CHAINLINK AROUNF ENTIRE FACILITY
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED N/A

FIRE ALARMS: (NO & LOCATION) 16 THROUGHOUT YD (SEE MAP)

PORTABLE EXTINGUISHERS (NO.) N/A INSIDE 14 OUTSIDE

FOAM STOCK AND EQUIPMENT FOAM EQUIP. MAIN GATE ENTRANCE

FIRE HYDRANTS (NO & LOCATION) 35, THROUGHOUT YD (SEE MAP)

FIRE HOSE (NO. & LOCATION 9, PLUS PORTABLE UNITS, THROUGHOUT YD (SEE MAP)
Outside

N/A
Inside

REMARKS: 1-12", 8-8", 2-6" PIPELINES EXTEND FM WHARF TO TANKS LOCATED IN REAR OF BERTH 57 ON CHANNEL 3.

PIER INSPECTOR R.H. DULIN PSC CGRG REP. 11-88870

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 78 (ARCO TERMINAL 2) PIER NO.

LOCATION: APPROX. 0.16 MILE FM HEAD OF CHANNEL

OWNED BY: CITY OF LONG BEACH
Name | Day Phone | Night Phone

Business Address

OPERATED BY: ATLANTIC RICHFIELD 436-9071 436-9074
Name | Day Phone | Night Phone

1300 W. 8th ST., LONG BEACH CA 90813
Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
A. R. WESSLEN	SUPT OF OPS	ATLANTIC RICH.	(213) 596-2021
J. GEARING	SUPV OF OPS.	" "	(714) 527-2082
"FOREMAN OF DUTY"		" "	(213) 436-9074

PURPOSE FOR WHICH USED: RECEIPT OF CRUDE OIL AND REFINED PRODUCTS

VESSELS ACCOMMODATED: 4

STEAMSHIP LINES REGULARLY HANDLED: RICHFIELD, HEND-INTERNATIONAL, ATLAS STEAMSHIP CO

DESCRIPTION

PIER:

LENGTH OF PIER N/A WIDTH OF PIER N/A

LENGTH OF APRON 300' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 43' USABLE BERTHING SPACE 300'

HT. DECK ABOVE MLW 14' LOAD CAP. PER SQ. FT. 250'

TYPE OF CONSTRUCTION CONCRETE PILE, CONCRETE DECKED, MARGINAL OFFSHORE WHARF WITH TWO 31' WIDE APPROACHES AND THREE PIPELINE TRESTLES EXTENDING FROM A STEEL PILE, CELLULAR BULKHEAD WITH SOLID FILL

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS:	No. N/A	No.	No.
TYPE OF CONSTRUCTION	N/A		
LENGTH AND WIDTH (FT)	N/A		
HEIGHT INSIDE (FT)	N/A		
TOTAL CARGO FLOOR (SQ FT)	N/A		
LOAD CAPACITY (#/ SQ FT)	N/A		

LOCATION OF AUTHORIZED PARKING ON EAST SIDE OF MAIN BUILDING NEAR ENTRANCE

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE NONE CAPACITY NONE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT THROUGH 3" LINE

CARGO HANDLING DEVICES: 6-8" HYDRAULIC OPERATED MARINE SWIVEL JOINTED LOADING ARMS MOUNTED ON ELEVATED STEEL STRUCTIRE ON WHARF AND TWO PNEUMATIC OPERATED MAST AND BOOM CRANES WITH 27' BOOMS FOR HANDLING HOSES AND SUPPLIES.

ACCESS:

RAILWAY: NONE

VEHICULAR: VIA W. 8th ST., ASPHALT 48' WIDE FM PICO AVE., & LB FWY

SECURITY:

WATCHMAN SECURITY COMPANY WATCHMAN/ AMERICAN PLANT SECURITY SIXTEEN HOURS
Type/Agency Hours

LOCATION OF WATCHMAN ROVING AND GATE WATCH

FENCING CHAINLINK AROUND ENTIRE FACILITY
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED N/A

FIRE ALARMS: (NO & LOCATION) 16 THROUGHOUT YD (SEE MAP)

PORTABLE EXTINGUISHERS (NO.) N/A INSIDE 14 OUTSIDE

FOAM STOCK AND EQUIPMENT FOAM EQUIP. MAIN GATE ENTRANCE

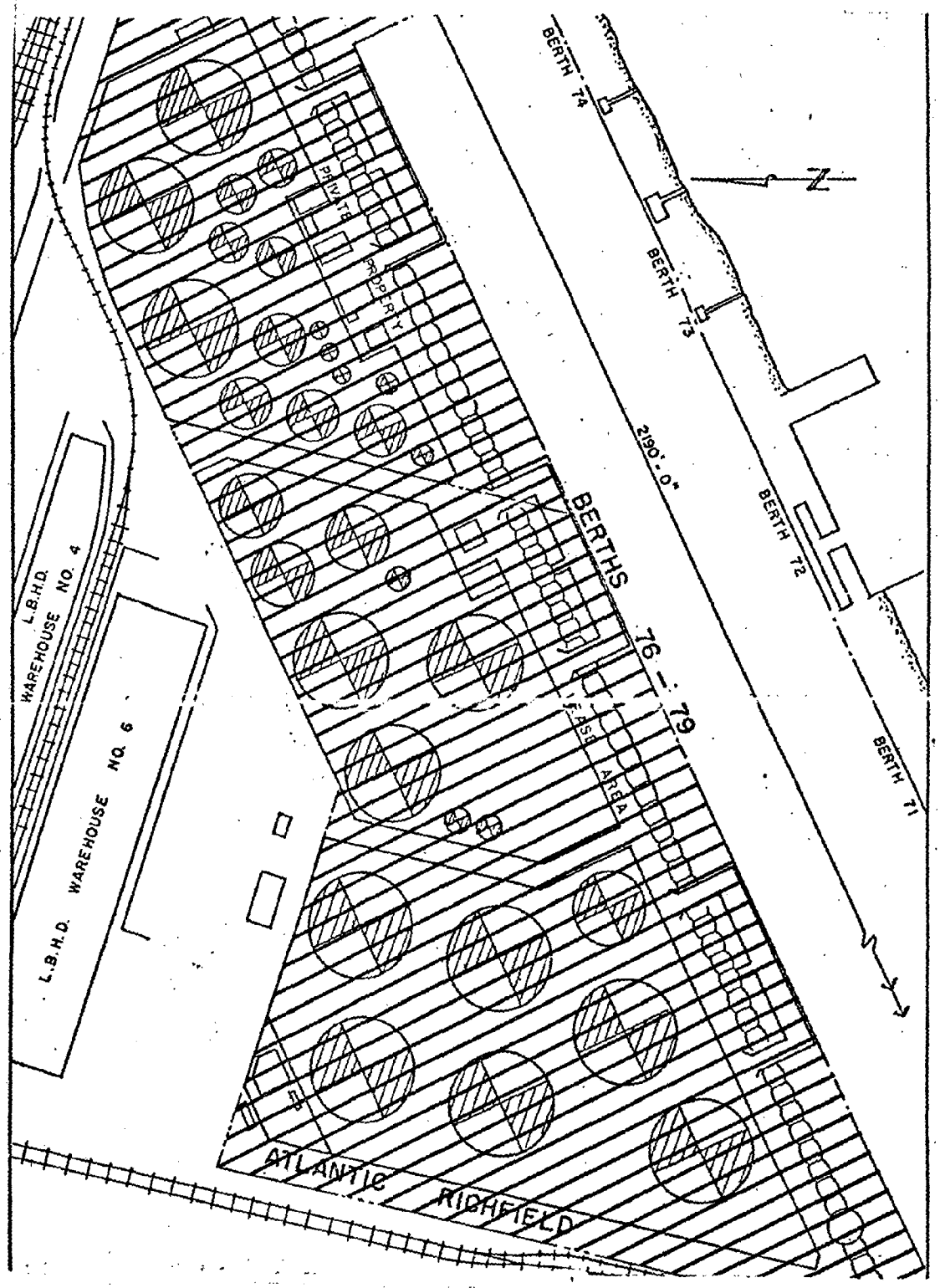
FIRE HYDRANTS (NO & LOCATION) 35, THROUGHOUT YD (SEE MAP)

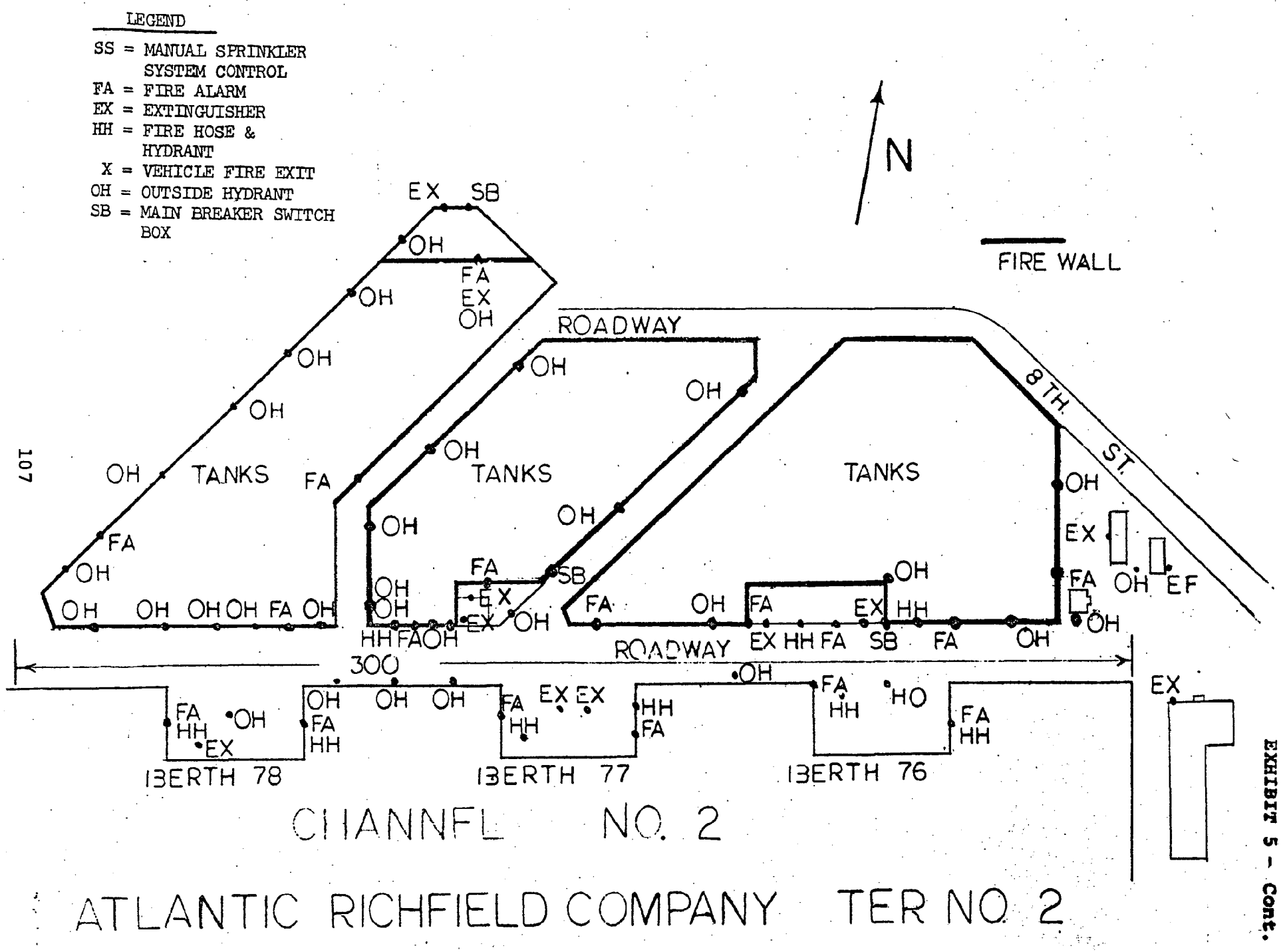
FIRE HOSE (NO. & LOCATION 9, PLUS PORTABLE UNITS, THROUGHOUT YD (SEE MAP)
Outside

N/A
Inside

REMARKS: 1-12", 8-8", 2-6" PIPELINES EXTENDED FROM WHARF TO TANKS LOCATED IN REAR OF BERTH 57 ON CHANNEL 3.

PIER INSPECTOR R.H. DULIN PSC CGRG REP. 11-88870


BERTH 74
BERTH 73
BERTH 72
BERTH 71
2190'-0"
BERTHS 76 - 79
PRIVATE PROPERTY
LEASE AREA
L.B.H.D. WAREHOUSE NO. 4
L.B.H.D. WAREHOUSE NO. 6
ATLANTIC RICHFIELD



ATLANTIC RICHFIELD COMPANY TER NO. 2

EXHIBIT 5 - Cont.

EXHIBIT 6

AMORIENT BERTH 33 *

EXISTING PETROLEUM FACILITIES

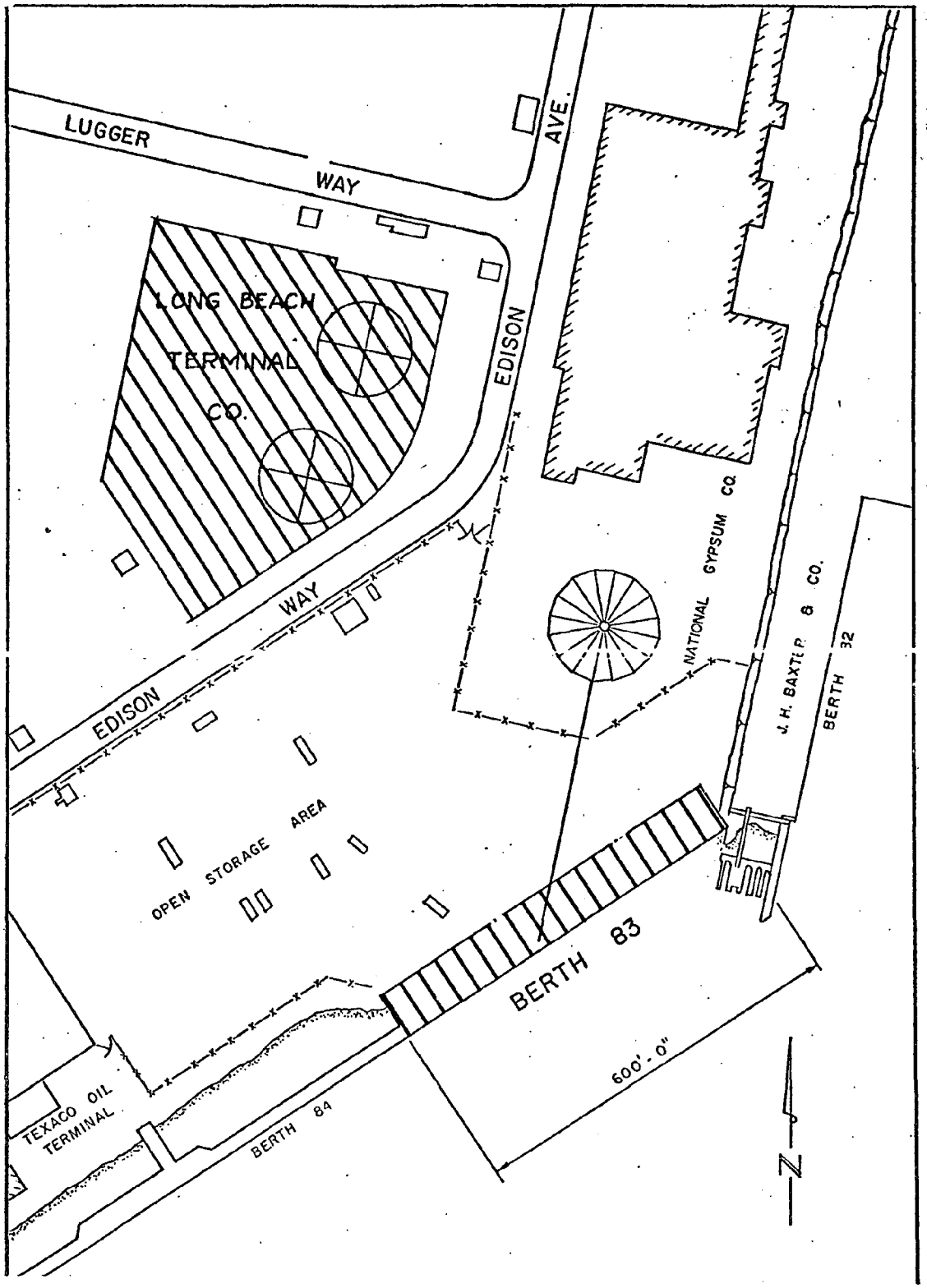
WHARF CHARACTERISTICS

Numbers of berths	1
Length of berth(s) (ft)	600
Depth alongside wharf (ft)	44
No. of cargo transfer points to ship	4
Size of connections (in)	4-8" connecting to 2-10"
Maximum discharge rate (bbl/hr)	10,000 maximum

* Used as a Multi-Commodity Facility

TERMINAL CHARACTERISTICS

Berth backland (acres)	5.4
Crude storage capacity (bbl)	None
Refined storage capacity (bbl)	218,000
Distance to refinery (mi)	Line to Berth 84-87 Texaco Tank Farm
Number of pipelines	1
Size of pipeline(s) to refinery (in)	8"
Maximum pumping rate to refinery (bbl/hr)	4,000
Ownership of facilities	Municipal
Leasing agreements	Lease


LUGGER
WAY
AVE.
LONG BEACH
TERMINAL
CO.
EDISON
WAY
EDISON
NATIONAL GYPSUM CO.
J. H. BAXTER & CO.
BERTH 32
OPEN STORAGE AREA
BERTH 83
600'-0"
TEXACO OIL
TERMINAL
BERTH 84
N

TEXACO BERTHS 84-87

EXHIBIT 7

EXISTING PETROLEUM FACILITIES

WHARF CHARACTERISTICS

Numbers of berths	2
Length of berth(s) (ft)	1970
Depth alongside wharf (ft)	55 (Maintenance Dredge to 62)
No. of cargo transfer points to ship	5
Size of connections (in)	2-12", 3-10"
Maximum discharge rate (bbl/hr)	Pumps directly from ship to refinery

TERMINAL CHARACTERISTICS

Berth backland (acres)	4.5
Crude storage capacity (bbl)	Outside Port District
Refined storage capacity (bbl)	245,000
Distance to refinery (mi)	2.5
Number of pipelines	3
Size of pipeline(s) to refinery (in)	1-24", 1-16", 1-14".
Maximum pumping rate to refinery (bbl/hr)	24"-20,000, 16"-10,000, 14"-8,000
Ownership of facilities	Municipal
Leasing agreements	Lease

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 84 - 87 PIER NO.

LOCATION: INNER HARBOR, NORTH SIDE OF CHANNEL2 & TURNING BASIN

OWNED BY: CITY OF LONG BEACH, HARBOR DEPT. 437-0041 SAME
Name Day Phone Night Phone

P. O. BOX 570, LONG BEACH
Business Address

OPERATED BY: TEXACO, INC. 432-1950 SAME
Name Day Phone Night Phone

2050 EDISON WAY, LONG BEACH
Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
H. E. PETERSON	DOCK FOREMAN	TEXACO	(213) 424-6126
R. L. DELINE	TER SUPT	TEXACO	(213) 425-5383
MR. CHADDOCK	TECH POLL SPILL CONTROL		596-2036

PURPOSE FOR WHICH USED: RECEIPT & SHIPMENT OF PETROLEUM PRODUCTS, BUNKERING VESSELS, LOADING BARGES FOR BUNKERING VESSELS.

VESSELS ACCOMMODATED: TANKERS, BARGES, BUNKERING VESSELS (3)

STEAMSHIP LINES REGULARLY HANDLED: TEXACO, MAINLY & FEW BARGES OCCASSIONALLY

DESCRIPTION

PIER:

LENGTH OF PIER 1972' WIDTH OF PIER OPEN

LENGTH OF APRON 1972' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 56" USABLE BERTHING SPACE 1972'

HT. DECK ABOVE MLW 16" LOAD CAP. PER SQ. FT. 750LBS

TYPE OF CONSTRUCTION CONCRETE PILE, CONCRETE DECKEDOOFFSHORE WHARF WITH 55X20' APPROACHES, FRONTING SLOPING ROCK REVETTED BANK, TIMBER FENDER SYSTEM ALONG. FACE

LIGHTED OR UNLIGHTED YES

TRANSIT SHEDS: No. N/A No. No.

TYPE OF CONSTRUCTION N/A

LENGTH AND WIDTH (FT) N/A

HEIGHT INSIDE (FT) N/A

TOTAL CARGO FLOOR (SQ FT) N/A

LOAD CAPACITY (#/ SQ FT) N/A

LOCATION OF AUTHORIZED PARKING BETWEEN TANK FARM&MAIN BLDG. NEAR DOCKS

4/1/77 REVISED

BERTH 84-87

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE AC220, 3 PHASE CAPACITY 60 CYCLE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT 3-2' HOSE CONNECTIONS

CARGO HANDLING DEVICES: 3-40' WIDE LOADING STATIONS, EACH WITH 8, 8" HYDRAULIC OPERATED, MARINE, SWIVEL-JOINTED LOADING ARMS MOUNTED ON AN ELEVATED STEEL STRUCTURE.

ACCESS:

RAILWAY: NONE

VEHICULAR: VIA EDISON AVE., ASPHALT 48' WIDE FM W. 8th ST.

SECURITY:

WATCHMAN SECURITY ABM SECURITY (Type/Agency) ALL LOADING TIME (Hours)

LOCATION OF WATCHMAN SHIPBOARD WATCH

FENCING CHAINLINK BETWEEN MAIN BLDG. & DOCKS, CONCRETE WALLS (Type) (Area)

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED N/A

FIRE ALARMS: (NO & LOCATION) N/A

PORTABLE EXTINGUISHERS (NO.) N/A INSIDE 8 OUTSIDE

FOAM STOCK AND EQUIPMENT IN PUMP YARD BETWEEN TANK FARM & DOCK

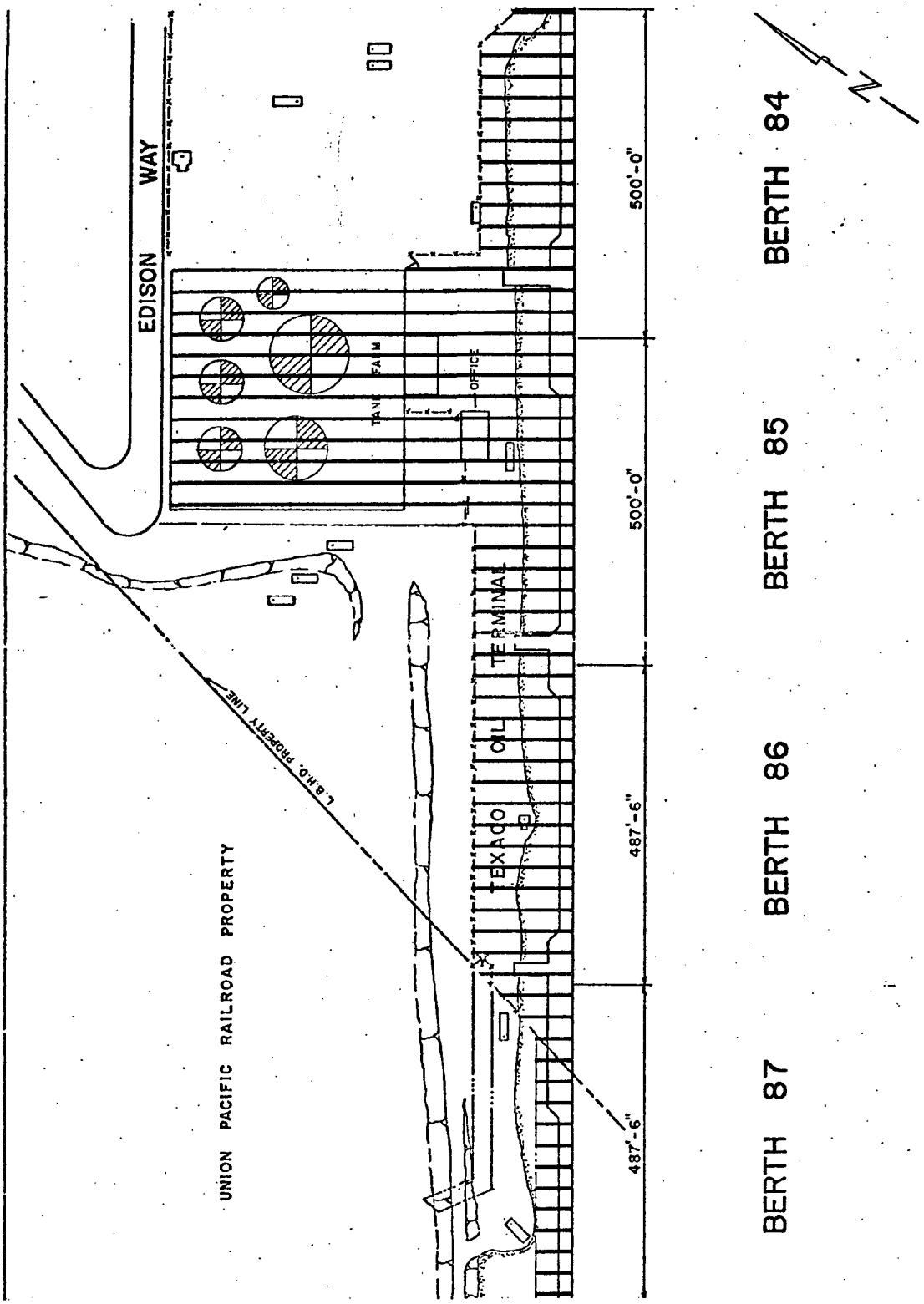
FIRE HYDRANTS (NO & LOCATION) 10 ON DOCK

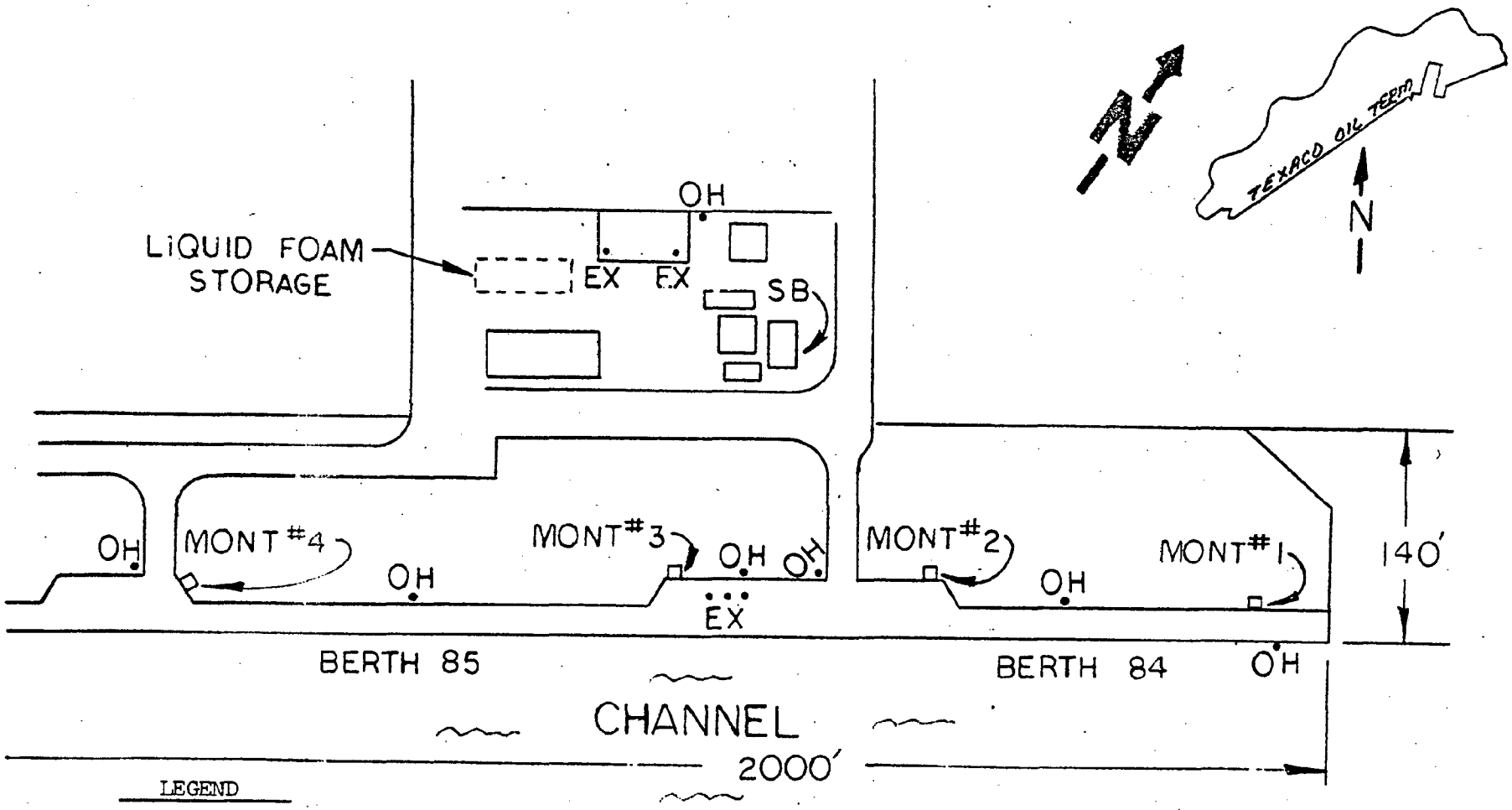
FIRE HOSE (NO. & LOCATION SEVERAL PORTABLE ALONG DOCK (Outside)

N/A (Inside)

REMARKS: 5-10, 3-8 and 2-6 INCH PIPELINES EXTEND TO OIL REFINERY LOCATED ON PACIFIC COAST HIGHWAY APPROX. 1 ½ MILES NORTH OF WHARF.

PIER INSPECTOR R.K. WIEGART CWO 2 CGRG REP. 11-30870


EDISON WAY
TANK FARM
OFFICE
EXACO OIL TERMINAL
L.B.H.D. PROPERTY LINE
UNION PACIFIC RAILROAD PROPERTY
500'-0"
500'-0"
487'-6"
487'-6"
BERTH 84
BERTH 85
BERTH 86
BERTH 87
N



LEGEND

SS = MANUAL SPRINKLER SYSTEM CONTROL
FA = FIRE ALARM
EX = EXTINGUISHER
HH = FIRE HOSE & HYDRANT
X = VEHICLE FIRE EXIT
OH = OUTSIDE HYDRANT
SB = MAIN BREAKER SWITCH BOX

SCALE: 1" = 125'

EXHIBIT 1 - CONT.

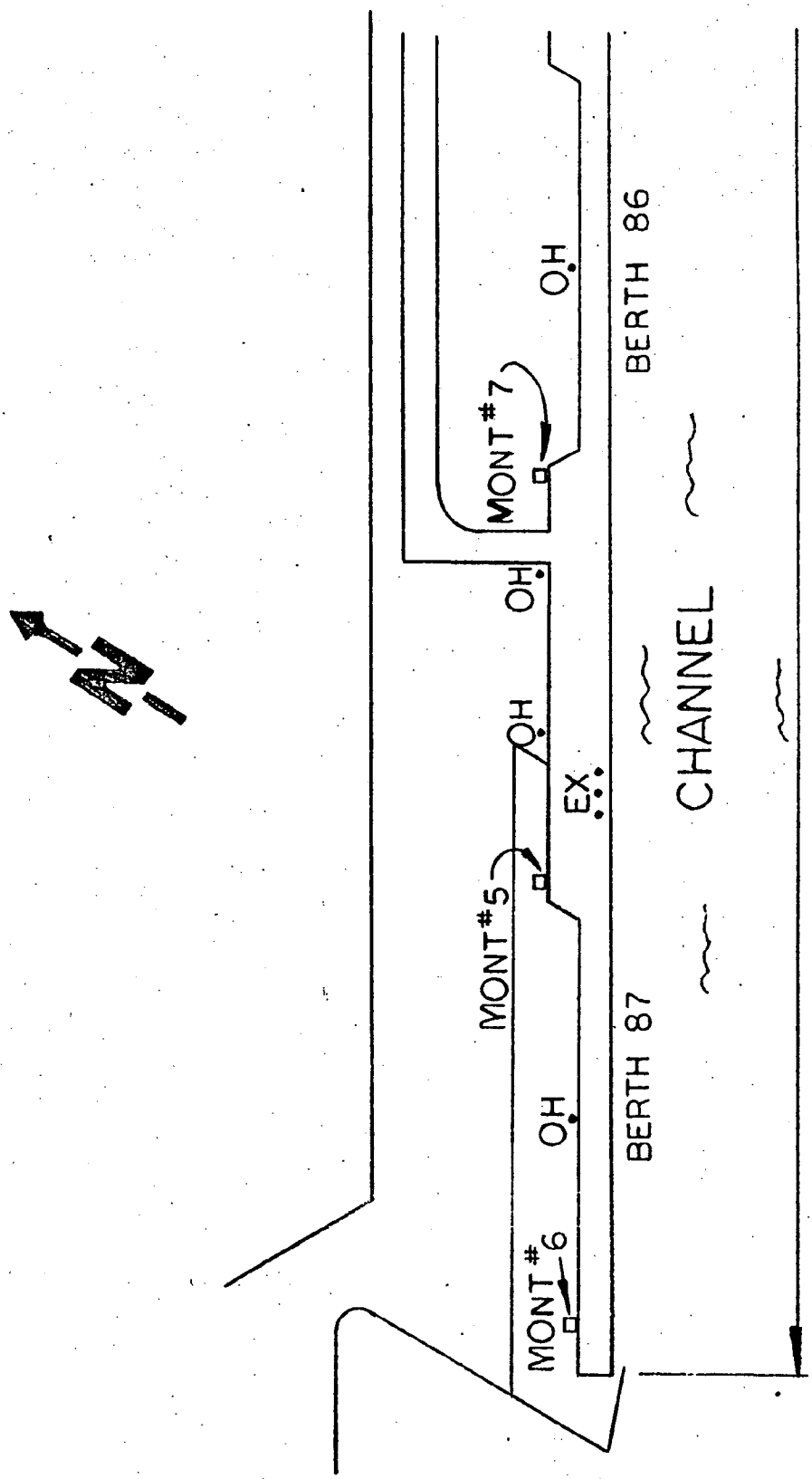

N
MONT #6
MONT #5
MONT #7
OH
OH
OH
OH
EX
BERTH 87
BERTH 86
CHANNEL

EXHIBIT 8

DOW CHEMICAL COMPANY
BERTH 101
EXISTING LIQUID BULK (CHEMICAL) FACILITIES

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 101 PIER NO. _____

LOCATION: Long Beach

OWNED BY: CITY OF LOS ANGELES
Name | Day Phone | Night Phone

Business Address

OPERATED BY: DOW CHEMICAL 328-4322
Name | Day Phone | Night Phone

Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
CHARLES LEE	TERM MGR		(714) 897-2339
DENNIS BRISCO			(714) 898-2763
MAIN PLANT			328-4322

PURPOSE FOR WHICH USED: BULK CARGO

VESSELS ACCOMMODATED: TANKERS

STEAMSHIP LINES REGULARLY HANDLED: VARIOUS

DESCRIPTION

PIER:

LENGTH OF PIER _____ WIDTH OF PIER _____

LENGTH OF APRON _____ WIDTH OF APRON _____

DEPTH ALONGSIDE (MLW) _____ USABLE BERTHING SPACE _____

HT. DECK ABOVE MLW _____ LOAD CAP. PER SQ. FT. _____

TYPE OF CONSTRUCTION _____

LIGHTED OR UNLIGHTED _____

TRANSIT SHEDS:	No.	No.	No.
TYPE OF CONSTRUCTION			
LENGTH AND WIDTH (FT)			
HEIGHT INSIDE (FT)			
TOTAL CARGO FLOOR (SQ FT)			
LOAD CAPACITY (#/ SQ FT)			

LOCATION OF AUTHORIZED PARKING _____

4/1/77 REVISED

BERTH

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE _____ CAPACITY _____

EMERGENCY POWER ACCOMMODATIONS: _____

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT _____

CARGO HANDLING DEVICES: _____

_____

ACCESS:

RAILWAY: _____

VEHICULAR: _____

SECURITY:

WATCHMAN SECURITY _____
Type/Agency Hours

LOCATION OF WATCHMAN _____

FENCING _____
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED _____

FIRE ALARMS: (NO & LOCATION) _____

PORTABLE EXTINGUISHERS (NO.) _____ INSIDE _____ OUTSIDE

FOAM STOCK AND EQUIPMENT _____

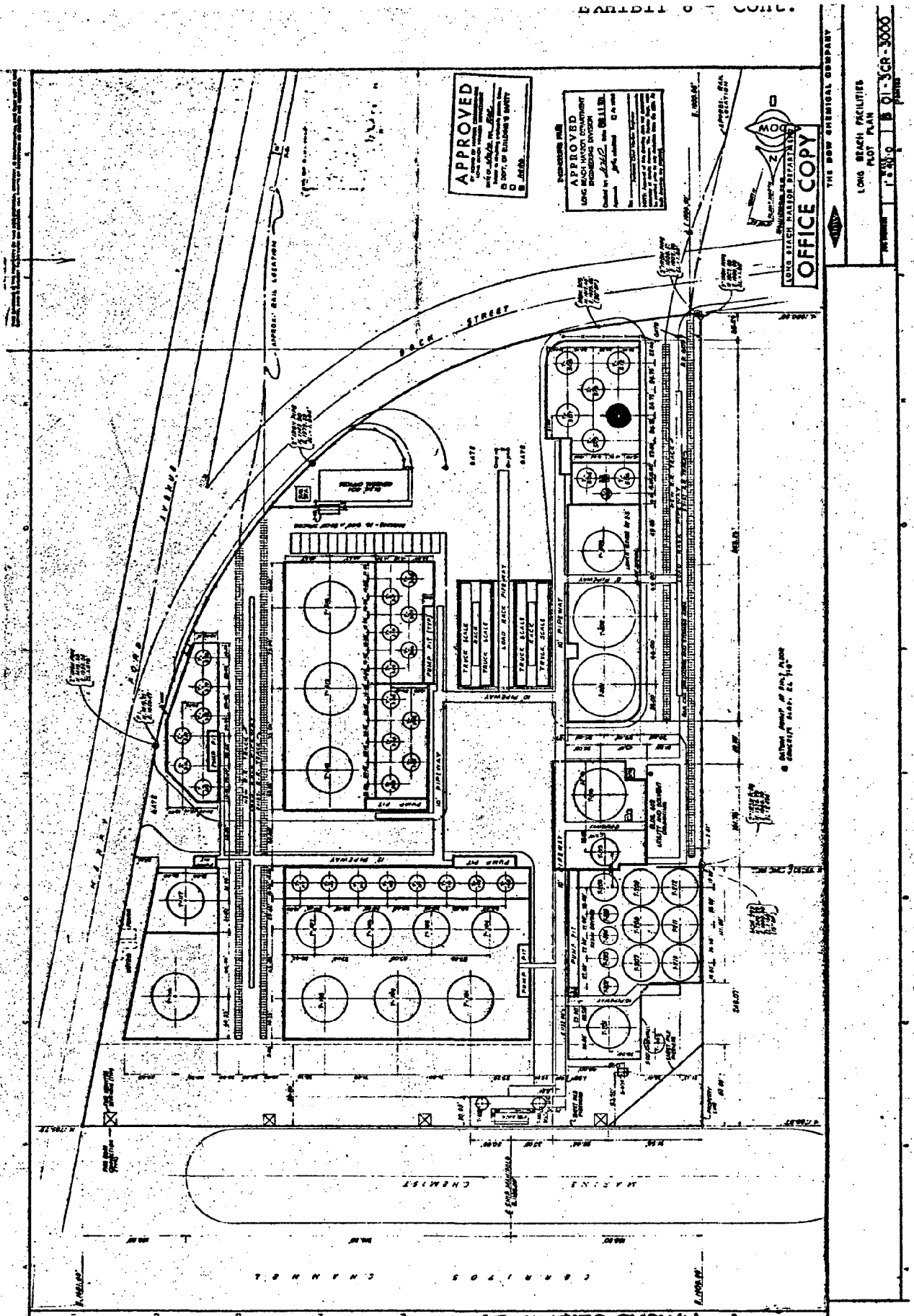
FIRE HYDRANTS (NO & LOCATION) _____

FIRE HOSE (NO. & LOCATION _____
Outside

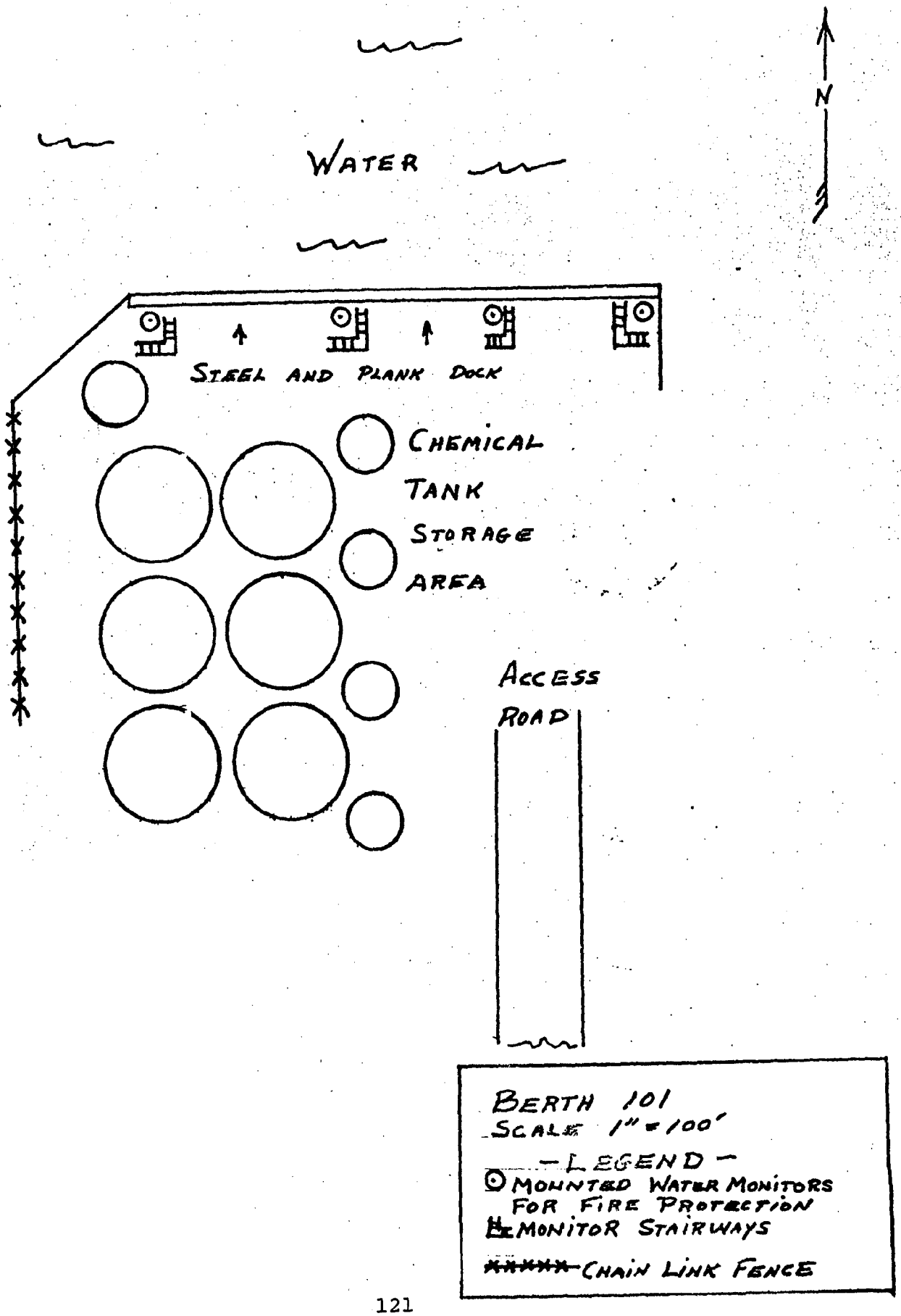
_____
Inside

REMARKS:

PIER INSPECTOR R.K. WIDGERT CWO 2 CGRG REP. 11-88670



PROPOSED AND EXISTING FACILITIES SHOWN


N
WATER
STEEL AND PLANK DOCK
CHEMICAL
TANK
STORAGE
AREA
ACCESS
ROAD
BERTH 101
SCALE 1" = 100'
- LEGEND -
MOUNTED WATER MONITORS
FOR FIRE PROTECTION
MONITOR STAIRWAYS
CHAIN LINK FENCE

ARCO BERTHS 118-119

EXHIBIT 9

EXISTING PETROLEUM FACILITIES

WHARF CHARACTERISTICS

Numbers of berths	1
Length of berth(s) (ft)	1200
Depth alongside wharf (ft)	55 (Maintenance Dredge to 62)
No. of cargo transfer points to ship	2
Size of connections (in)	1 - 24", 1 - 14"
Maximum discharge rate (bbl/hr)	24" - 25,000 (crude) 14" - 4,000 (fuel)

TERMINAL CHARACTERISTICS

Berth backland (acres)	12.4
Crude storage capacity (bbl)	Outside Port District
Refined storage capacity (bbl)	None
Distance to refinery (mi)	2.5 mi to Terminal Two then 3.5 mi to refinery from Terminal Two
Number of pipelines	2
Size of pipeline(s) to refinery (in)	24" to Terminal Two & Edison 14" fuel to Terminal Two
Maximum pumping rate to refinery (bbl/hr)	25,000
Ownership of facilities	Municipal
Leasing agreements	Lease

EXHIBIT 9 - Cont.

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 118-119 ATLANTIC RICHFIELD PIER NO. E

LOCATION: WEST SIDE OF INNER HARBOR ENTRANCE CHANNEL, EAST SIDE OF PIER E APPROX. 0.30 MILES SO. OF GERALD DESMOND BRIDGE.

OWNED BY: CITY OF LONG BEACH
Name | Day Phone | Night Phone

211 MARINER AVE. P.O. BOX 570, LONG BEACH
Business Address

OPERATED BY: ATLANTIC RICHFIELD CO | 436-9071 | 436-9074
Name | Day Phone | Night Phone

1300 W. 8th ST., LONG BEACH, 90813
Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
A. R. WESSLEN	SUPV OF OPS		596-2021
J. GEARING	SUPV OF OPS.		(714) 527-2882
FORMAN ON DUTY			436-9074

PURPOSE FOR WHICH USED: RECEIPT OF CRUDE OIL SHIPMENT OF PETROLEUM AND BUNKERING OF VESSELS.

VESSELS ACCOMMODATED: OIL TANKERS

STEAMSHIP LINES REGULARLY HANDLED: RICHFIELD, HENO-INTERNATIONSL, ATLAS STEAMSHIP CO

DESCRIPTION

PIER:

LENGTH OF PIER N/A WIDTH OF PIER N/A

LENGTH OF APRON SO WHARF 68' NO. 68' CTR WHARF 92' WIDTH OF APRON SO 116, CTR 116, NO. 116

DEPTH ALONGSIDE (MLW) 52' USABLE BERTHING SPACE 480'

HT. DECK ABOVE MLW 25' LOAD CAP. PER SQ. FT. 500

TYPE OF CONSTRUCTION WHARF CONSISTS OF THREE CONCRETE PILE, CONCRETE DECKED PARALLEL WHARVES, 90' APART; RUBBER FENDER SYSTEM ALONG FACES, 2 RECTANGULAR-SHAPED BREASTING DOLPHINS IN LINE WITH FACES.

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS: No. N/A No. No.

TYPE OF CONSTRUCTION N/A

LENGTH AND WIDTH (FT) N/A

HEIGHT INSIDE (FT) N/A

TOTAL CARGO FLOOR (SQ FT) N/A

LOAD CAPACITY (#/ SQ FT) N/A

LOCATION OF AUTHORIZED PARKING INSIDE FRONT GATE CO. OF GUARD GATE

4/1/77 REVISED

BERTH 118-119

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE 220 CAPACITY 3PHASE, 60 CYCLE

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT 6" LINE WITH 2½" HOSE CONNECTIONS

CARGO HANDLING DEVICES: 5-12" HYDRAULIC OPERATED MARINE SWIVEL-JOINTED LOADING ARMS ON ELEVATED STEEL STRUCTURE ON CENTER EHARF

ACCESS:

RAILWAY: NONE

VEHICULAR: VIA PRIVATE RD. FM PINE AVE. 48' WIDE

SECURITY:

WATCHMAN SECURITY WATCHMAN ON DUTY TWENTY-FOUR HOURS WHEN SHIP IS BEING LOADED
AMERICAN PLANT PROTECTION (Type/Agency) 6am 6pm (Hours)

LOCATION OF WATCHMAN FRONT GATE

FENCING CHAINLINK-EAST SIDE, SOUTH SIDE, NORTH SIDE
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED none

FIRE ALARMS: (NO & LOCATION) NONE

PORTABLE EXTINGUISHERS (NO.) INSIDE 2 OUTSIDE

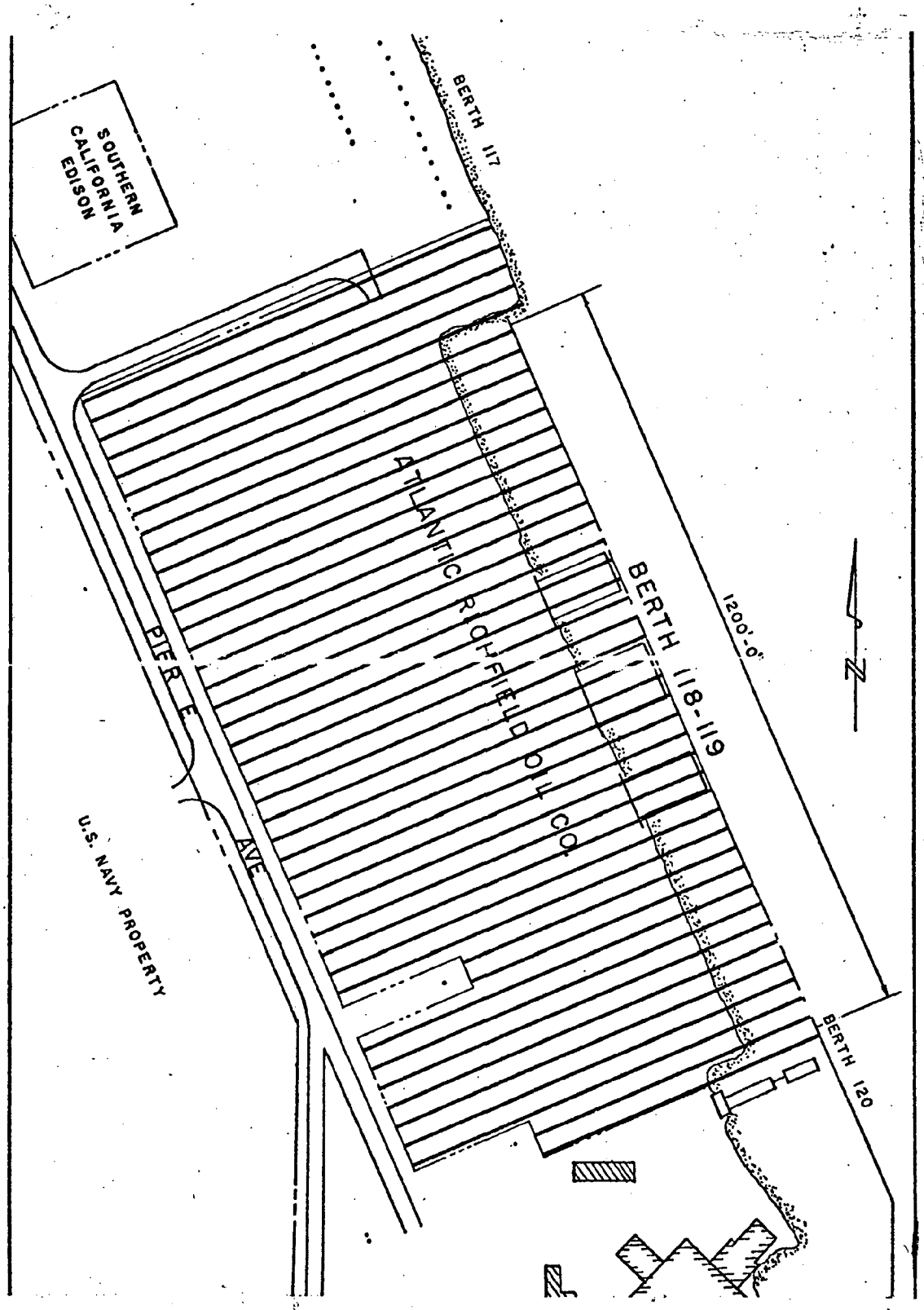
FOAM STOCK AND EQUIPMENT 4 PORTABLE 150# CAP APPLIANCES

FIRE HYDRANTS (NO & LOCATION) 3-WEST SIDE OF DOCK, 4 HYDRANTS NEAR WATER LINE ON SO. SIDE OF BERTH - FACILITY HAS TWO TANKS - 3900LBS TOTAL CAP.

FIRE HOSE (NO. & LOCATION 8-ON DOCK ALONG WEST
Outside
N/A
Inside

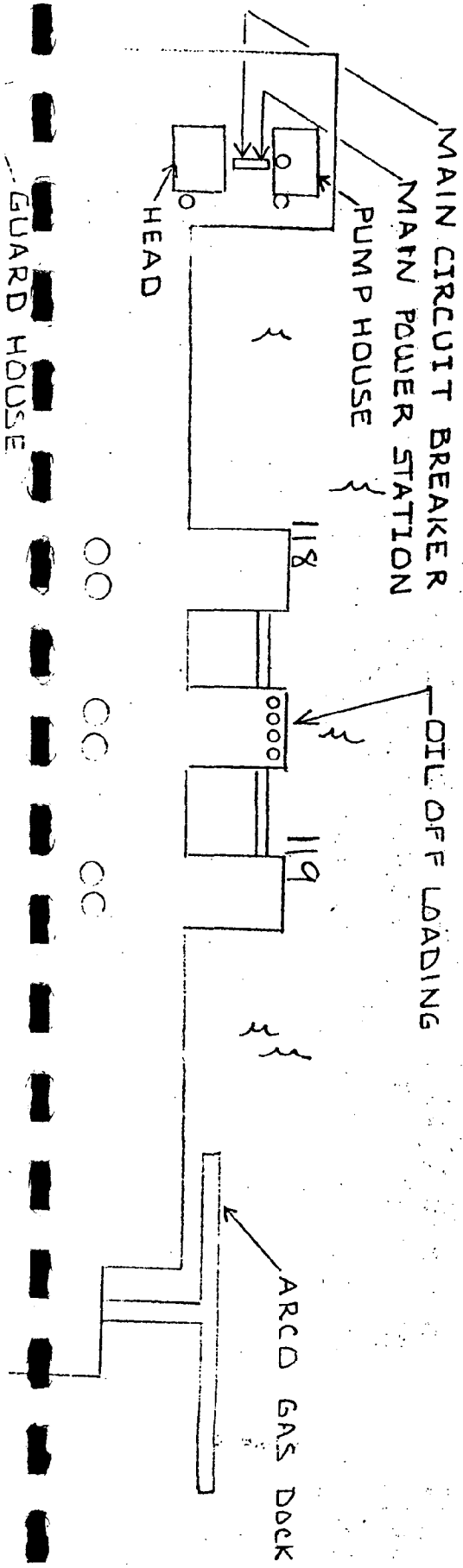
REMARKS: Vessels up to 920' long can berth at wharves by using shore moorings. Steel walkway, 2' wide, connection of wharves and dolphins. One 24 and one 14" pipeline from wharf to storage tanks described and located in rear of Ref. Nos. 58, 59 and 60. Timber pile, timber of wharf, used as fueling station for small craft. One 900 barrel slop tank located in rear with one 3" pipeline extending to wharf.

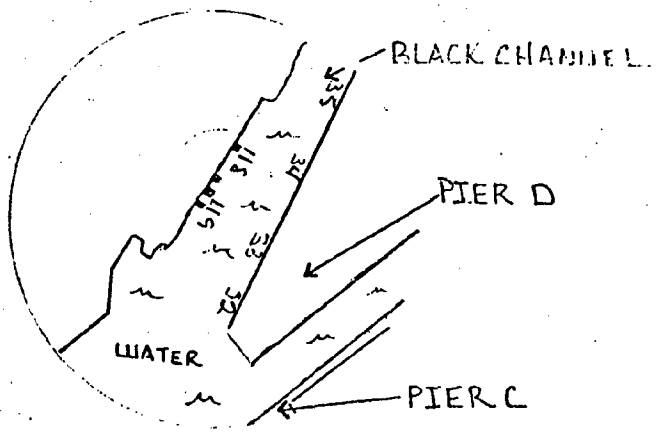
PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-88870


BERTH 117
SOUTHERN CALIFORNIA EDISON
ATLANTIC RICHFIELD OIL CO.
BERTH 118-119
1200'-0"
N
PIER E
AVE
U.S. NAVY PROPERTY
BERTH 120

PORT OF LONG BEACH

ATLANTIC RICHFIELD
BERTH 118-119





LEGEND

SS = MANUAL SPRINKLER SYSTEM CONTROL
FA = FIRE ALARM
EX = EXTINGUISHER
HH = FIRE HOSE & HYDRANT
X = VEHICLE FIRE EXIT
FO = FOAM EQUIPMENT
PS = PUMP SWITCH
EF = EMERG FUEL SHUT OFF

EXXON BERTH 209

EXISTING PETROLEUM FACILITIES*

WHARF CHARACTERISTICS

Number of berths	1
Length of Berth(s)	550
Depth alongside wharf (ft)	38
No. of cargo transfer points to ship	1
Size of connections (in)	12" to Panorama Drive Terminal One 6" and one 8" Berth to ship, each with max discharge rate of 5,000 bbl/hr.

TERMINAL CHARACTERISTICS

Refined storage capacity	402,200
Leasing Agreements	Lease on tank farm

* Used as a Mult-Commodity Facility
See also figure for Berth 210, Exhibit 10

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 209 PIER NO. A

LOCATION: PORT OF LONG BEACH, PIER A

OWNED BY: CITY OF LONG BEACH
Name Day Phone Night Phone

P.O. BOX 20110 LONG BEACH, CA
Business Address

OPERATED BY: OCEAN SALT 437-0071 SAME
Name Day Phone Night Phone

1250 PANORAMA DRIVE
Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
D. DUTRO	PLANT SUPT.		(714)894-189
PAT PATTISON	GEN. MGR.		(714)546-549

PURPOSE FOR WHICH USED: BULK

VESSELS ACCOMMODATED: BULK

STEAMSHIP LINES REGULARLY HANDLED: ATLAS

DESCRIPTION

PIER:

LENGTH OF PIER 593' WIDTH OF PIER 1450'

LENGTH OF APRON 593' WIDTH OF APRON OPEN

DEPTH ALONGSIDE (MLW) 39' USABLE BERTHING SPACE 550'

HT. DECK ABOVE MLW 16' LOAD CAP. PER SQ. FT. 2000LBS

TYPE OF CONSTRUCTION CONCRETE PILE, CONCRETE WALL, ASPHALT SURFACE

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS:	No. NONE	No.	No.
TYPE OF CONSTRUCTION	NONE		
LENGTH AND WIDTH (FT)	NONE		
HEIGHT INSIDE (FT)	NONE		
TOTAL CARGO FLOOR (SQ FT)	NONE		
LOAD CAPACITY (#/ SQ FT)	NONE		

LOCATION OF AUTHORIZED PARKING OF BERTH (NORTH SIDE)

4/1/77 REVISED

BERTH 209

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE NONE CAPACITY N/A

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT NONE

CARGO HANDLING DEVICES: CONVEYOR BELTS

ACCESS:

RAILWAY: YES, TWO LINES

VEHICULAR: TRUCKS LOADING AND OFF LOADING

SECURITY:

WATCHMAN SECURITY NONE
Type/Agency Hours

LOCATION OF WATCHMAN NONE

FENCING CHAINLINK, STREET SIDE AND BETWEEN BERTHS 208 and 209-4 ACRES
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED NONE

FIRE ALARMS: (NO & LOCATION) NONE

PORTABLE EXTINGUISHERS (NO.) NONE INSIDE YES OUTSIDE

FOAM STOCK AND EQUIPMENT NONE

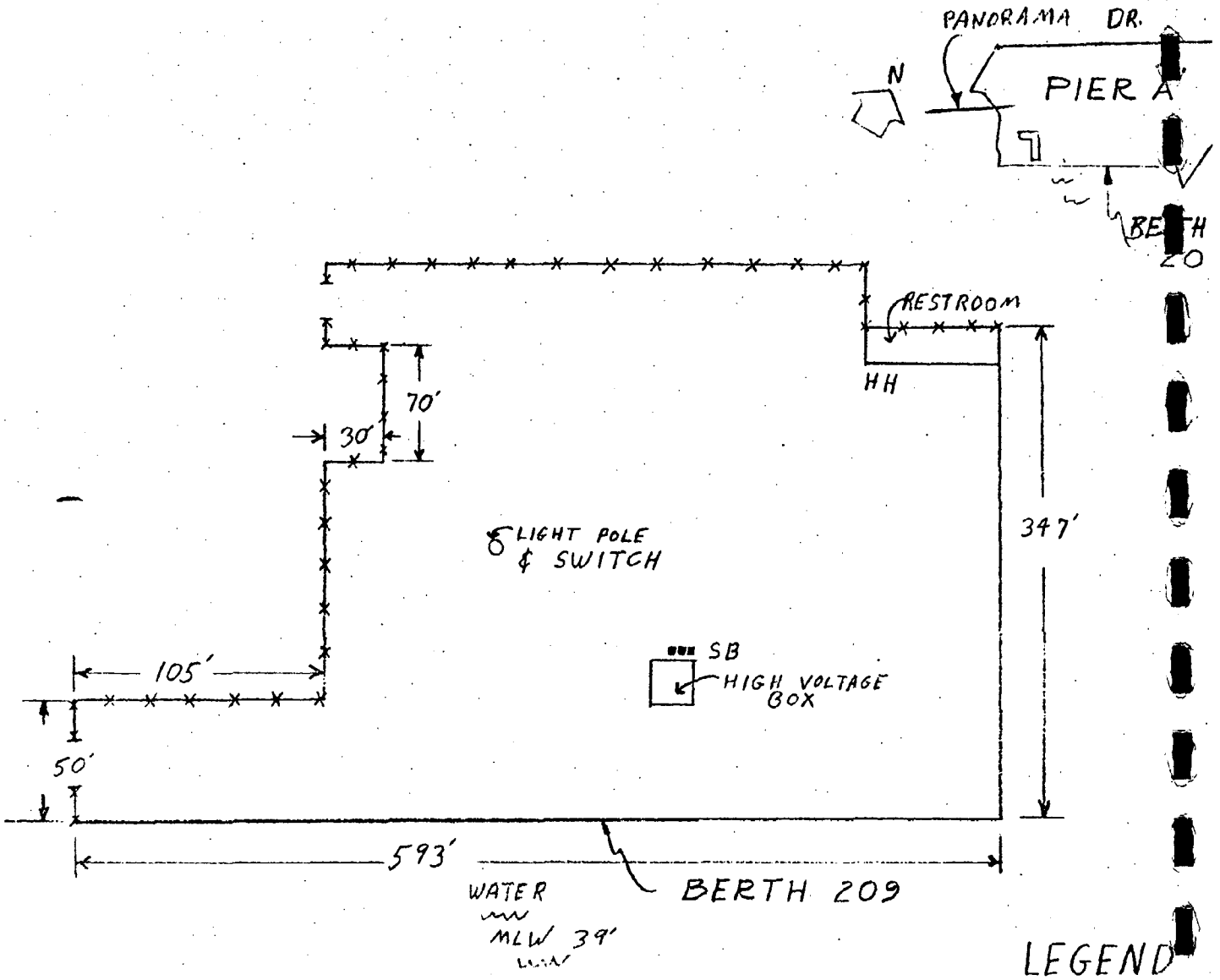
FIRE HYDRANTS (NO & LOCATION) YES

FIRE HOSE (NO. & LOCATION NORTHEAST CORNER OF THE RESTROOM BUILDING
Outside
NONE
Inside

REMARKS:

VACANT

PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-86670



PIER "A"

BERTH # 209

NATIONAL MOLASSES BERTH 210

EXISTING PETROLEUM FACILITIES

WHARF CHARACTERISTICS

Numbers of berths	1
Length of berth(s) (ft)	550
Depth alongside wharf (ft)	40
No. of cargo transfer points to ship	1
Size of connections (in)	12" to Panorama Drive Terminal One 8" at Berth to ship
Maximum discharge rate 3,000 (bbl/hr)	

Ship services needed Bunkering, water

* Used as a Multi-Commodity Facility

TERMINAL CHARACTERISTICS

Berth backland (acres)	3.7
Crude storage capacity (bbl)	None
Refined storage capacity (bbl)	402,200
Distance to refinery (mi)	No refinery involved
Number of pipelines	None
Size of pipeline(s) to refinery (in)	None
Maximum pumping rate to refinery (bbl/hr)	None
Ownership of facilities	Municipal
Leasing agreements	Lease on tank farm

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 210 & 211 PIER NO. A

LOCATION: N/W SIDE OF SOUTHEAST BASIN, LONG BEACH

OWNED BY: CITY OF LONG BEACH, HARBOR DEPT. 437-0041 SAME
Name Day Phone Night Phone

P.O. BOX 570, LONG BEACH
Business Address

OPERATED BY: KOPPEL BULK TERMINAL 436-9776 436-9777
Name Day Phone Night Phone

PIER A BERTH 211
Business Address

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
GEORGE KOPPEL	PRESIDENT	KOPPEL GRAIN CO.	(213)425-8722
CHUCK HAWTHORNE	ASSIST. SUPT.		(714)848-9062
DAVE NOE			(714)963-1050

PURPOSE FOR WHICH USED: EXPORT GRAIN TERMINAL

VESSELS ACCOMMODATED: BULK GRAIN CARRIES

STEAMSHIP LINES REGULARLY HANDLED: VARIOUS

DESCRIPTION

PIER:

LENGTH OF PIER 550' WIDTH OF PIER OPEN

LENGTH OF APRON 550' WIDTH OF APRON 35'

DEPTH ALONGSIDE (MLW) 42' USABLE BERTHING SPACE 550'

HT. DECK ABOVE MLW 19' LOAD CAP. PER SQ. FT. 2000LBS

TYPE OF CONSTRUCTION CONCRETE PILING AND DOCK

LIGHTED OR UNLIGHTED LIGHTED

TRANSIT SHEDS:	No. 1 ON 211	No. 2 ON 210	No. GRAIN ELEVATOR
TYPE OF CONSTRUCTION	METAL	METAL	CONCRETE
LENGTH AND WIDTH (FT)	200X80	205X90	60 Dia.
HEIGHT INSIDE (FT)	50	40	300
TOTAL CARGO FLOOR (SQ FT)	N/A	18000	2,000,000
LOAD CAPACITY (#/ SQ FT)	N/A	2,000	2,000

LOCATION OF AUTHORIZED PARKING IN FRONT OF OFFICE ON 211

BERTH 210&211

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE 100KWH CAPACITY N/A

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT 2" HOSE

CARGO HANDLING DEVICES: 5 GRAIN LOADING SPOUTS BOXCAR DUMPER

ACCESS:

RAILWAY: HARBOR BELT LINE (6 TRACKS)

VEHICULAR: VIA PANORAMA DRIVE

SECURITY:

WATCHMAN SECURITY N/A
Type/Agency Hours

LOCATION OF WATCHMAN N/A

FENCING N/A
Type Area

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED NONE

FIRE ALARMS: (NO & LOCATION) 2 OUTSIDE

PORTABLE EXTINGUISHERS (NO.) 25 INSIDE 4 OUTSIDE

FOAM STOCK AND EQUIPMENT NONE

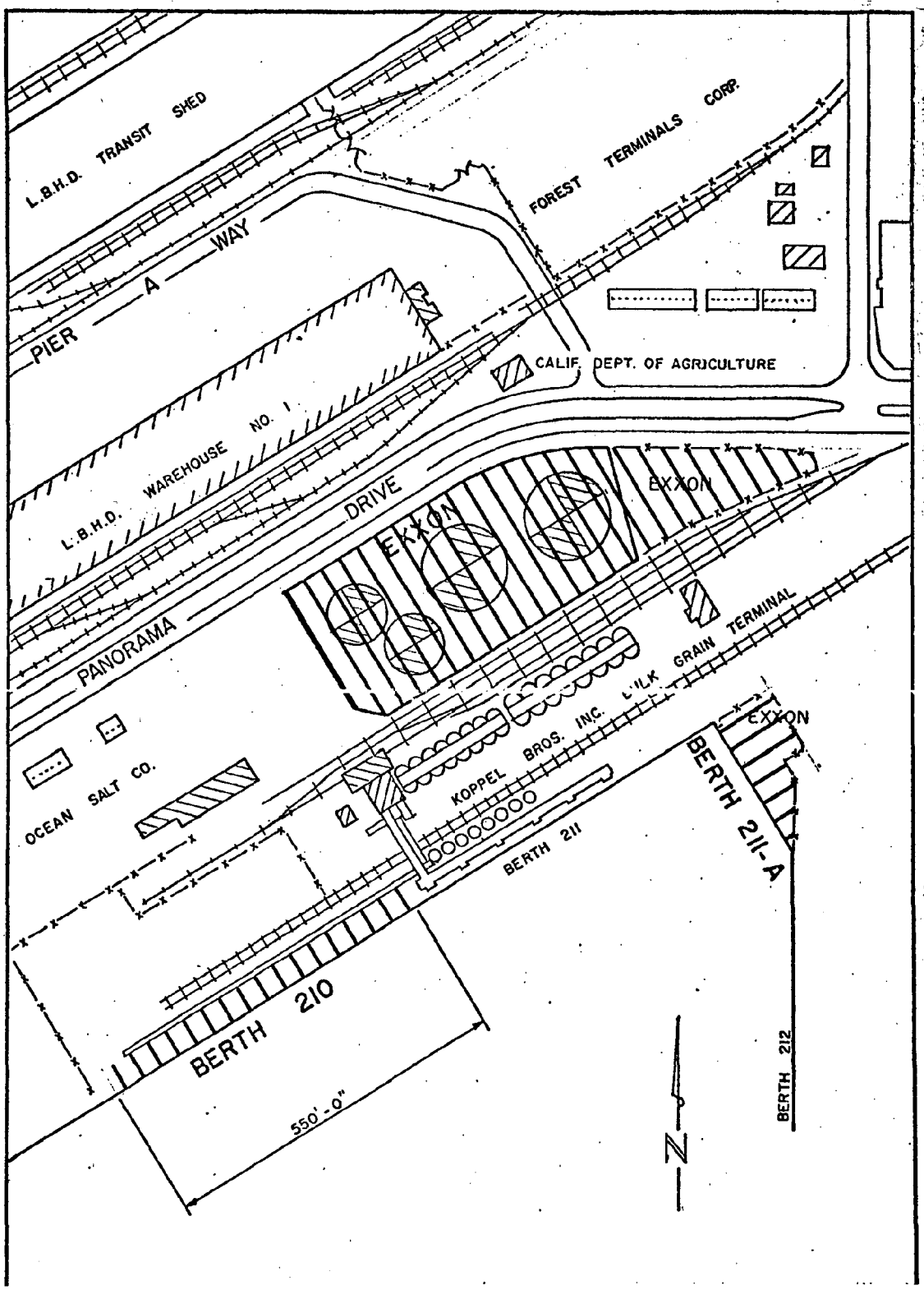
FIRE HYDRANTS (NO & LOCATION) 2 OUTSIDE

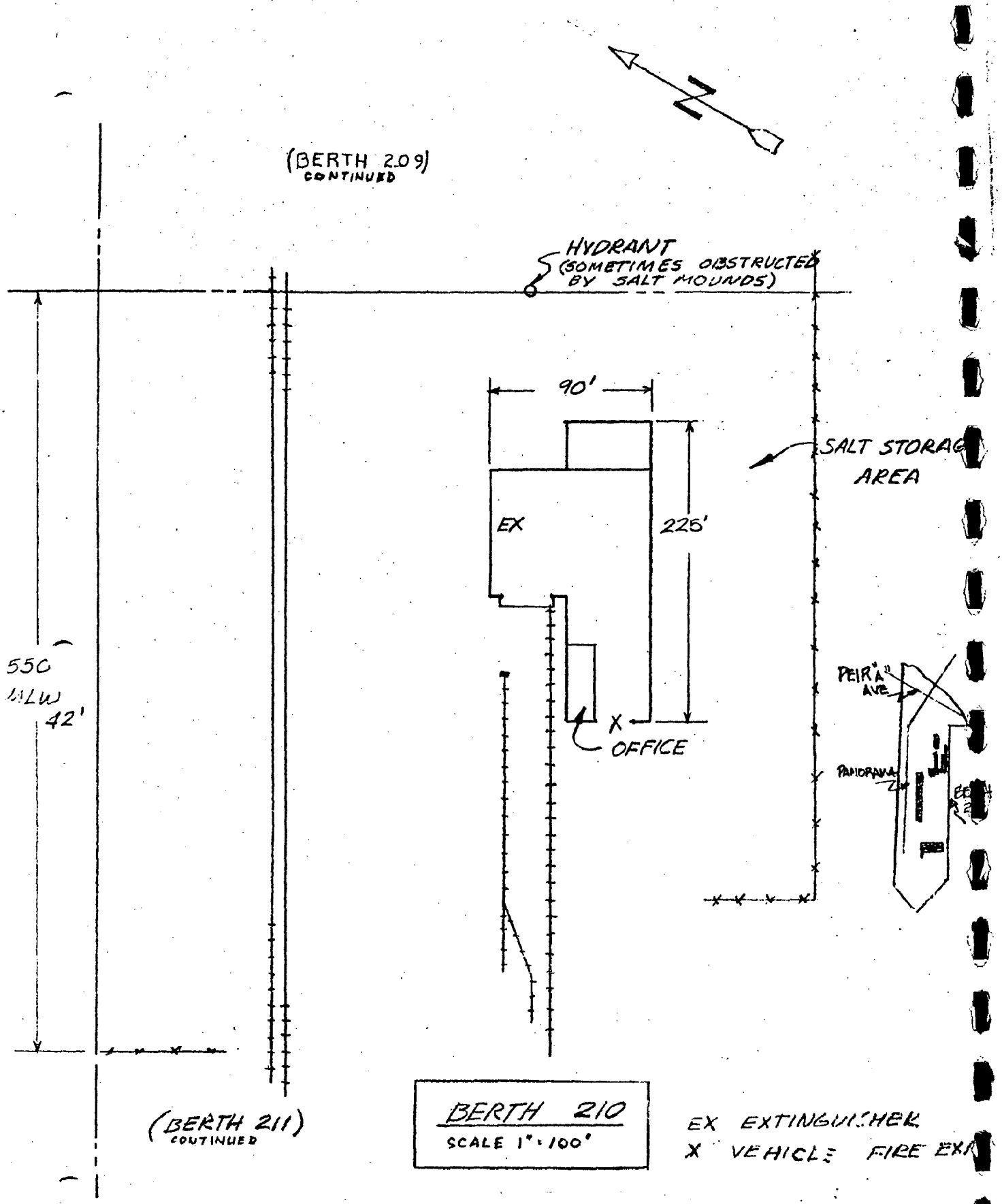
FIRE HOSE (NO. & LOCATION 1 S/W CORNER 211
Outside
NONE
Inside

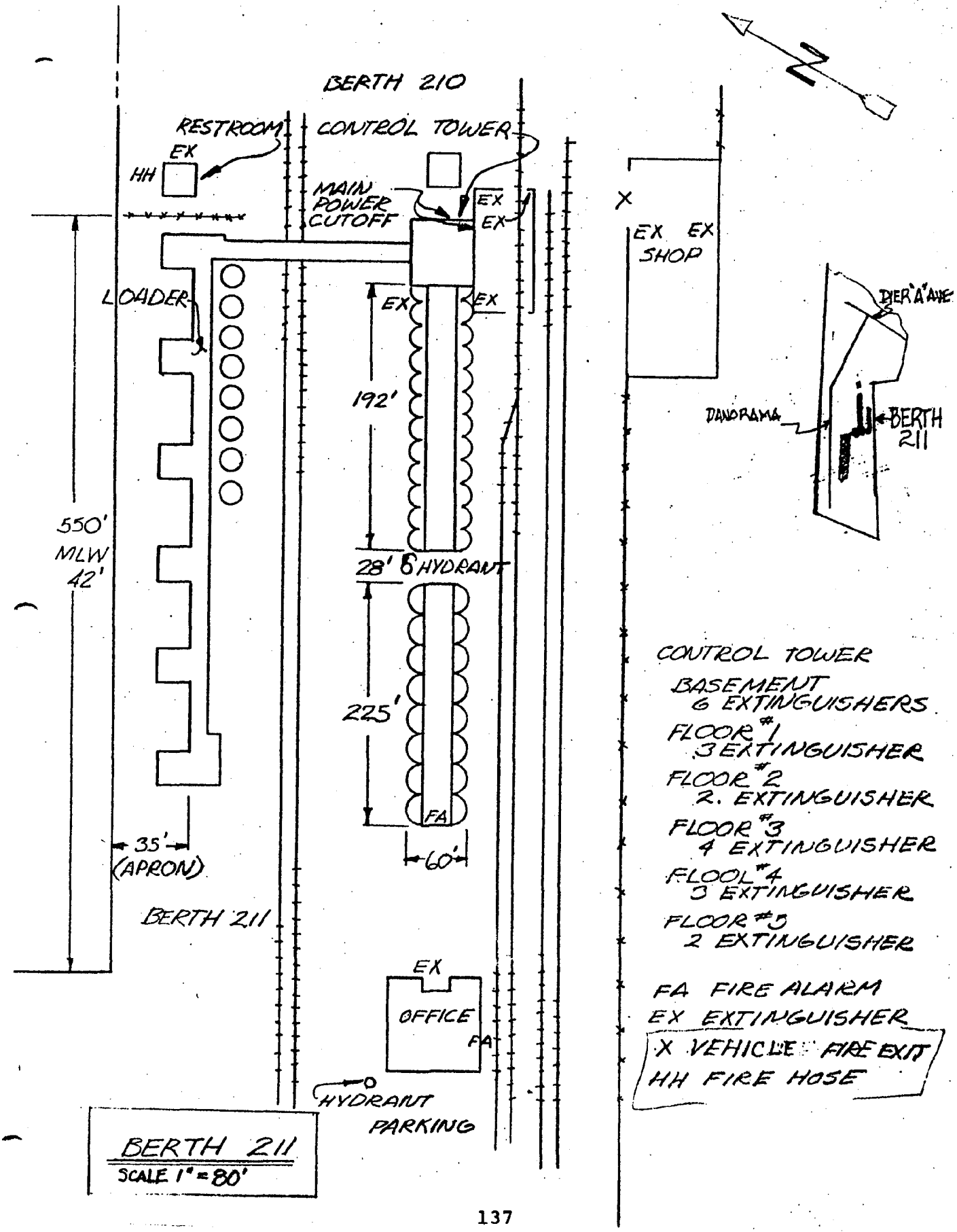
REMARKS:

ACCESS VIA PANORAMA AT PICO

PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-88870


L.B.H.D. TRANSIT SHED
FOREST TERMINALS CORP.
PIER A WAY
CALIF. DEPT. OF AGRICULTURE
L.B.H.D. WAREHOUSE NO. 1
PANORAMA DRIVE
EXXON
EXXON
EXXON
KOPPEL BROS. INC. BULK GRAIN TERMINAL
OCEAN SALT CO.
BERTH 211
BERTH 211-A
BERTH 210
BERTH 212
550'-0"
N


(BERTH 209)
CONTINUED
HYDRANT
(SOMETIMES OBSTRUCTED BY SALT MOUNDS)
90'
SALT STORAGE AREA
EX
225'
550
MLW
42'
X
OFFICE
PEIR "A" AVE
PANORAMA
(BERTH 211)
CONTINUED
BERTH 210
SCALE 1" = 100'
EX EXTINGUISHER
X VEHICLE FIRE EXT


BERTH 210
RESTROOM
EX
HH
CONTROL TOWER
MAIN POWER CUTOFF
EX
EX
EX EX
SHOP
LOADER
EX
EX
192'
28'
HYDRANT
225'
FA
60'
550'
MLW
42'
35'
(APRON)
BERTH 211
EX
OFFICE
FA
HYDRANT
PARKING
BERTH 211
SCALE 1" = 80'
PIER "A" AVE
PANORAMA
BERTH 211
CONTROL TOWER
BASEMENT
6 EXTINGUISHERS
FLOOR #1
3 EXTINGUISHER
FLOOR #2
2. EXTINGUISHER
FLOOR #3
4 EXTINGUISHER
FLOOL #4
3 EXTINGUISHER
FLOOR #5
2 EXTINGUISHER
FA FIRE ALARM
EX EXTINGUISHER
X VEHICLE FIRE EXIT
HH FIRE HOSE

NATIONAL MOLASSES
BERTH 242
EXISTING LIQUID BULK (CHEMICAL) FACILITIES

Name & Location: Berth 242, Pier J - West side of Pier J about 0.60 miles south of Panorama Drive

Operated by: National Molasses Terminal

Wharf Description

Length (ft.): 150

Width (ft.): ---

Lighted: Yes

Load Capacity (lb./sq.ft.): ---

Design Depth: Pierhead - 36 ft.; 9 ft. out -42 feet

Height of Deck @ MLLW (ft.): 15.2

Type of Construction: Concrete piled, concrete decked marginal offshore wharf with one 30' wide approach from dike

Open Storage Area (sq.ft.) & Location: None

Mechanical Handling Facilities: Pumping and pipeline system designed to load and unload products from barges, ships, railroad cars, and trucks.

Storage capacity is 18,612,000 gallons with tanks ranging in size from 6,000 to 3,000,000 gallons.

Highway Connections: Via Pier J Avenue (marginal), Panorama Drive (access)

Railway Connections: Railroad tracks service the area

Water Supply: None

Electric Supply: None

Fire Protection: Fire hydrants and Watchmen

WATERFRONT FACILITY SURVEY

Survey Date: NOV 1 1976

FACILITY: BERTH 242 PIER NO. J

LOCATION: SOUTHEAST BASIN, PIER J

OWNED BY: CITY OF LONG BEACH (Name) 437-0041 (Day Phone) SAME (Night Phone)

P.O. BOX 20110, LONG BEACH, 90861 (Business Address)

OPERATED BY: NAT. MOLASSES CO. (Name) 435-5623 (Day Phone) (Night Phone)

1395 PIER J AVE., LONG BEACH (Business Address)

EMERGENCY PHONE NUMBERS:

Name	Position	Firm	Emerg. Phone
JOHN SHERMAN	TERM MGR.	NMC	(213)423-5198
ARMANDO CALDERON		NMC	(213) 591-0475
LEE WALTER	ASSIT. MGR.	NMC	(213) 426-5786

PURPOSE FOR WHICH USED: TRANSPORTING MOLASSES

VESSELS ACCOMMODATED: TANKERS

STEAMSHIP LINES REGULARLY HANDLED: VARIOUS

DESCRIPTION

PIER:

LENGTH OF PIER 600' WIDTH OF PIER 90'

LENGTH OF APRON 600' WIDTH OF APRON 60'

DEPTH ALONGSIDE (MLW) 40' USABLE BERTHING SPACE 400'

HT. DECK ABOVE MLW 15' LOAD CAP. PER SQ. FT. N/A

TYPE OF CONSTRUCTION REINFORCED CONCRETE PILINGS AND DECK ASPHALT TOP

LIGHTED OR UNLIGHTED MERCURY VAPOR

TRANSIT SHEDS: No. NONE No. No.

TYPE OF CONSTRUCTION THERE ARE STORAGE TANKS (SEE MAP)

LENGTH AND WIDTH (FT) N/A

HEIGHT INSIDE (FT) N/A

TOTAL CARGO FLOOR (SQ FT) N/A

LOAD CAPACITY (#/ SQ FT) N/A

LOCATION OF AUTHORIZED PARKING ~~NEXT TO OFFICE~~

BERTH 242

FACILITIES:

POWER AVAILABLE TO VESSELS: VOLTAGE NONE CAPACITY N/A

EMERGENCY POWER ACCOMMODATIONS: NONE

WATER SUPPLY AVAILABLE TO VESSELS: AMOUNT 3½" HOSE (ONE)

CARGO HANDLING DEVICES: ONLY THE STORAGE TANKS AND THE PIPES THRU WHICH THE MOLASSES PASSES

ACCESS:

RAILWAY: 1 TRACK 600' BEHIND TANKS

VEHICULAR: FROM PIER J AVE., TOYOTA YARD

SECURITY:

WATCHMAN SECURITY OWNER (Type/Agency) 18 DAYTIME (Hours)

LOCATION OF WATCHMAN IN OFFICE

FENCING CYCLONE/ WITH BARBED WIRE (Type) PERIMETER (Area)

FIRE FIGHTING FACILITIES:

SPRINKLER SYSTEM: AREA COVERED NONE

FIRE ALARMS: (NO & LOCATION) PHONE IN OFFICE

PORTABLE EXTINGUISHERS (NO.) 3 INSIDE NONE OUTSIDE

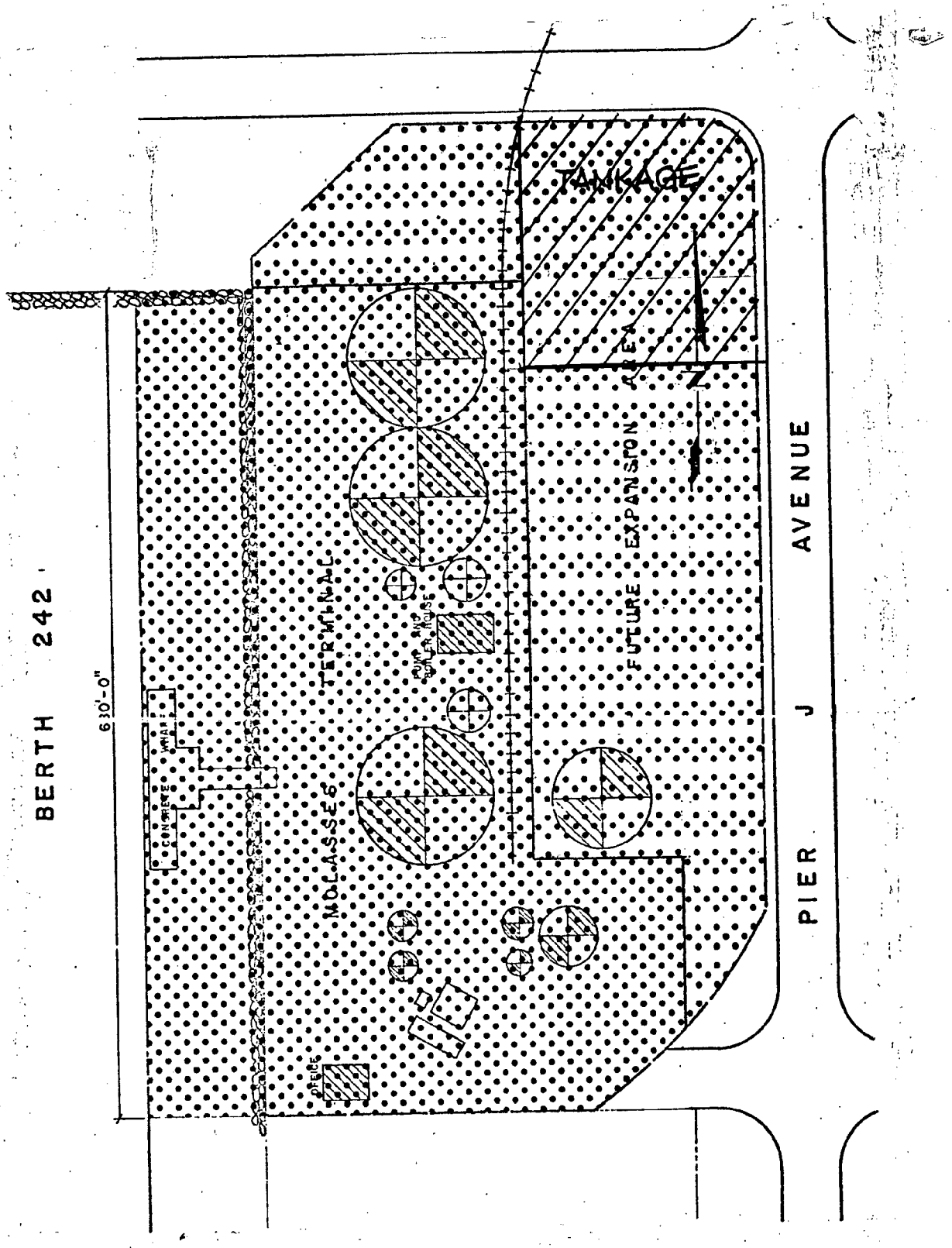
FOAM STOCK AND EQUIPMENT NONE

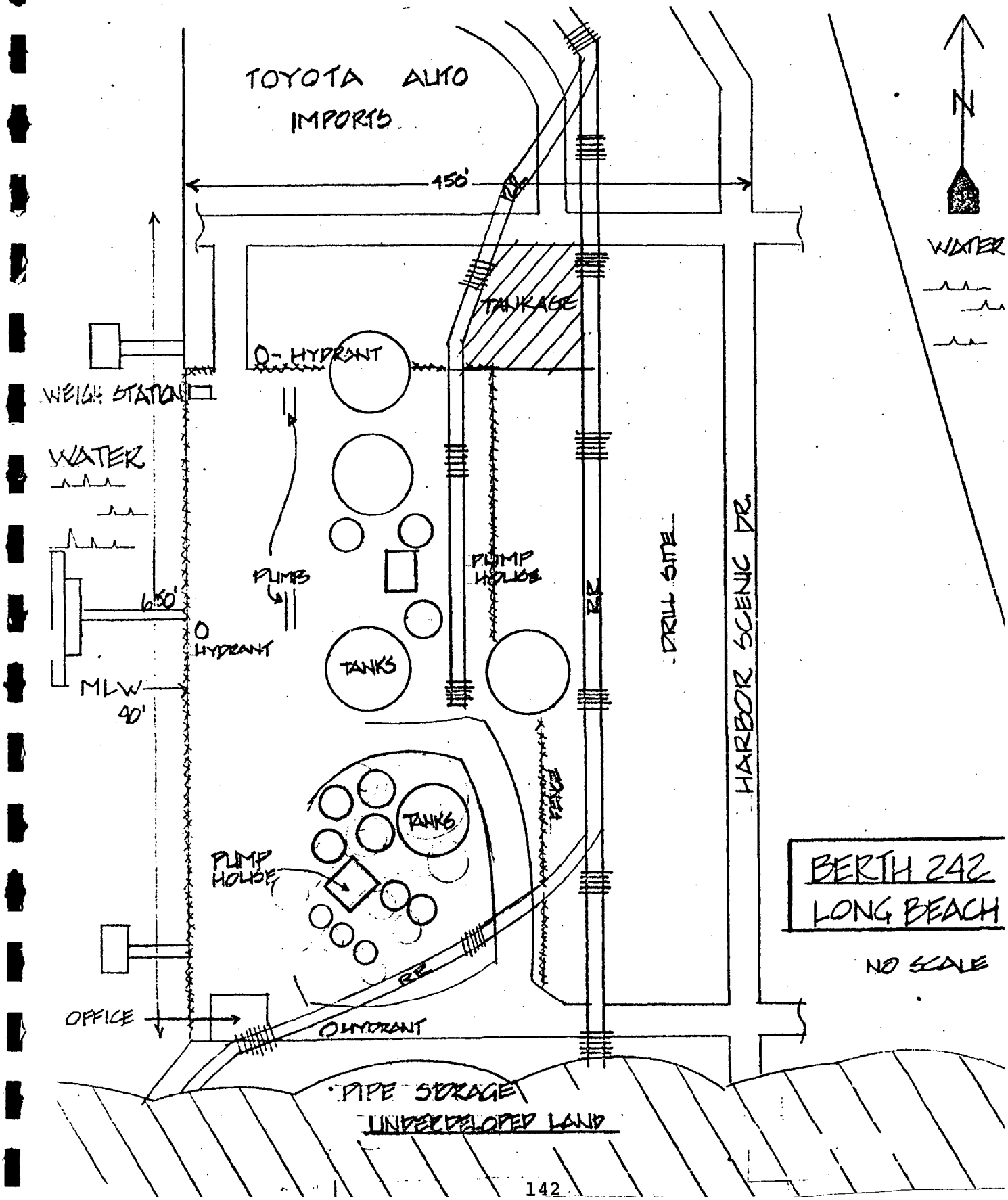
FIRE HYDRANTS (NO & LOCATION) 2 IN OFFICES

FIRE HOSE (NO. & LOCATION NONE (Outside)
NONE (Inside)

REMARKS:

PIER INSPECTOR R.K. WIEGERT CWO 2 CGRG REP. 11-88870


BERTH 242
610'-0"
CONCRETE WHARF
MOLASSES TERMINAL
POWER HOUSE
FUTURE EXPANSION AREA
TANKAGE
PIER J AVENUE


TOYOTA AUTO IMPORTS
150'
N
WATER
TANKAGE
O-HYDRANT
WEIGH STATION
WATER
PUMPS
PUMP HOUSE
650'
O HYDRANT
TANKS
MLW 40'
RR
DRILL SITE
HARBOR SCENIC DR.
TANKS
PUMP HOUSE
RR
OFFICE
O HYDRANT
PIPE STORAGE
UNDEVELOPED LAND
BERTH 242
LONG BEACH
NO SCALE

Terminal Maintenance Inventory

The Harbor Department Maintenance Division has principal responsibility for a variety of facility maintenance programs which incorporate special safety provisions. These programs cover all Harbor owned facilities which are either municipally or lessee operated (See Exhibit 12).

The preventive maintenance program involves repair, upgrading and periodic inspections of warehouses, buildings, transit sheds and other terminal structures and facilities. It covers repair and inspection of wharves, especially when a change of operator is involved. Cargo handling equipment, generally maintained by stevedoring companies, is periodically inspected to assure that safety and maintenance standards are enforced. Cargo transporting equipment such as trucks, railroads and ships are maintained by owners. Roadway repair is implemented by contractors under the direction of the Maintenance Division, except that the Engineering Division coordinates contracts on major jobs. The Maintenance Division operates and coordinates various heavy equipment belonging to the Port which may be used in cases of oil spill or emergency repairs.

The normal maintenance program encompasses lease and assignment areas, roadways, Port owned railroads, Port utilities, and oil pipelines. Routine maintenance is performed by the Maintenance Division, while maintenance due to damage is the responsibility of tenants. If tenants do not perform repairs the Maintanance Division does and bills the tenant. The primary responsibility for railroad repairs belongs to the railroad company using those lines. The Maintenance Division makes only minor repairs. Both utilities and oil pipelines are the responsibility of individual concerns involved.

The fire system maintenance program covers inspection, certification and installation of extinguishers, sprinklers, fire boats, alarm systems, and special fire system requirements. Responsibilities for inspection and maintenance and certification are distributed among the Harbor Department, the Fire Department and the Port tenants. Table 9 lists Port tenants, their locations, and the distribution of fire system maintenance responsibilities between the Harbor Department and tenants. Most of the maintenance responsibilities are assigned through the lease to the tenants. Exhibit 12 also shows a typical example of an attachment to the leases which assigns such maintenance responsibilities.

I. PREVENTIVE MAINTENANCE PROGRAM

A. Warehouses, Buildings, Transit Sheds.

1) Move-out & Move-in inspections. (Tenant change). Items to be repaired are listed; repair work costs billed to tenant responsible (except where lease provisions state otherwise). Any necessary upgrading would take place at this time (at Harbor Dept. expense.) Facility should be in good and safe condition when new tenant moves in.

2) Included are plumbing & fixtures, wiring, misc. electrical, windows, doors, area lighting, fencing, walls, floors, roof, misc. utilities, painting, fire protection, outside areas, loading docks, Duty to repair spelled out in lease.

3) Routine, periodic inspections take place; repairs needed are taken care of in same way.

B. Wharves

1) Includes piling, fender system, camels, floating docks, piers.

2) Move in - Move Out inspections & duty to repair as in "A" above.

3) Routine, periodic inspections as in "A" above.

C. Cargo Handling Equipment

1) Fork Lifts (Maintained by: Stevedoring Co.)

2) "Big Red's" (Maintained by: Stevedoring Co.)

3) Cranes

TYPE OF CRANE	MAINT. BY	FREQUENCY OF INSPECTION	FREQUENCY OF MAINTENANCE	LOAD TEST/ CERTIFICATION
Container	Tenant	Hourly/Daily/ Weekly	Hourly/Daily/ Weekly	Annually/ Quad. Annually
Gantry (Pier D)	Maint Div.	Daily/Weekly/ Quarterly	Daily/ Weekly	Annually/ Quad. Annually
Ship	Owner	18 mos. (US Flags) Am. Bureau of Shipping (ABS)	18 mos. (US Flag) (ABS)	Annually (USCG) (ABS)
Floating	Owner	Daily/Weekly (ABS) (USCG)	Hourly/Daily/ Weekly (ABS)	Annually/ Quad. Annually
Land (Portable)	Owner	Hourly/ Daily	Hourly/ Daily	Annually/ Quad. Annually

TABLE 8

4) Transtainers (Maintained by: Stevedoring Co.)

1. Lumber-type container carriers (maint. by Steve. Co.)

D. Cargo Transporting Equipment

1) Trucks & trailers (maintained by: owners, effectiveness varies)

2) Railroad (owner maintained)

3) Ship (owner maintained)

E. Roadways

1) Patch paving (sustaining contract) at direction of Maint. Division.

2) Major jobs (Engineering) sustaining contract.

F. Maintenance Division Equipment (all on P.M. schedule by hours or mileage)

1) Trucks, cranes, misc. heavy equip. (could be required for emergency repairs at any port facility).

2) Big Dipper (spill clean-up)

3) Portable generator(s) (Energy-power)

II. NORMAL MAINTENANCE

A. Lease areas, Assignments, etc.

1) Maintenance done after damage occurs.

a. Damage report made out by security, tenant, or others.

b. Tenant or other person responsible may repair, contract out, or have work done by Maint. Division. (Duty to repair spelled out in lease, assign., agreement, etc.). If tenants, responsibility, work to be done in 30 days or Maint. Division does work & bills tenant (RWO).

c. Problems in getting tenants to do work in reasonable length of time, but still insisting on Maint. Division not doing repair.

2) Routine or periodic maintenance (By Maint. Div.)

B. ROADWAYS

1) Periodically scheduled resurfacing or reconstruction. (Engineering/budgetary decision) can be bid or sustaining contract or maintenance (partially).

2) Patch paving.

C. RAILROADS (Most Port owned; some S.P.R.R.)

1) Responsibility of S.P.R.R. (usually).

2) Minor repairs sometimes done by Maint. Division.

D. UTILITIES

1) WATER (Primarily by Maint. Division, including periodic inspection & testing).

2) ELECTRICAL (Edison)

3) GAS (City of Long Beach)

4. PHONE (General Telephone Co.; ITT in Adm. Bldg.)

5. FIRE ALARM (City or Tenant)

E. OIL PROPERTIES (by individual oil co.)

III. FIRE SYTEMS (Maintenance of)

A. Extinguisher inspection and certification

1) Harbor Dept. (by Maint. Div.)

2) Tenants (Tenant's contractors)

B. Sprinklers in Buildings (Maint. & Test: City or Tenant)

C. Fire boats (Long Beach Fire Dept. & Harbor Dept.)

D. Alarm Systems (Maint. & Test: City or Tenant)

E. Fire system requirements in leased facilities (insp. & test: City or Tenant)

IV. SPECIALIZED MAINTENANCE TASKS, INSPECTIONS, TESTS, AND/OR CERTIFICATIONS RELATIVE TO TRANSPORT, STORAGE, LOADING, OR UNLOADING OF HAZARDOUS MATERIAL.

None known for Maintenance Division. Could be same for specialized tenants.

V. PROCEDURES IN EMERGENCY FOR MAINTENANCE DIVISION PERSONNEL.

A. Oil (or other) spill in Harbor: ordinarily not responsible. (Big Dipper could be converted).

B. Fire: ordinarily not involved.

C. Power failure: Maintenance Division has a few small portable generators.

D. Communications failure: radio back-up in maintenance/security vehicles. (3 base stations).

E. Pipeline break: If water, maint. division responsible. Others by owner.

PORT OF LONG BEACH FIRE SYSTEM MAINTENANCE

LESSEE	MAINTENANCE RESPONSIBILITY		
	INSIDE	OUTSIDE	
Forest Terminals Corp.	L	H	911, 961 Pier "A" Avenue
Atlantic Richfield Co.	L	L	E-118,
	L	L	G-212, 213 155 Pier G Avenue
Powell River-Alberni Sales Corp.	L	H	Pier 2; 52,53,54 (HD Bldg. 29)
	L	L	(HD Bldg. 10, 107, 171)
Powarine Oil Company	L	L	1405 W. 7th
Thums	L	L	880 Windham
Texaco, Inc.	L	L	Channel 2, Berths 84-87
Koppel	L	L	
Exxon	L	L	A-(1-5) & (11-33) F-(6-10) & (201-211)
National Molasses	L	L	987 Pier A Ave./1395 Pier J Ave
Canal Industrial Park, Inc, (PASHA)	L	L	680 Pier E Avenue/387
Baker Commodities	L	L	D-32 /530 Pier "D" Avenue
Chevron-USA	L	L	A-11
Cooper Stevedoring Co. Inc.	L	L	A-9, 10, 201
Crescent Terminals	L	L	1251 Pier "F" Avenue
Fremont Forest Products	L	L	1933 Edison Way
Gas Dept. City of Long Beach	L	L	1256 Pier "J" Avenue
Great Lakes Carbon	L	L	1241 Pier "G" Avenue
IMC Carbon Products	L	L	1029 Pier "G" Avenue
International Transportation Ser.	L	L	A-11
KMHC, INC. Kaiser Gypsum	L	L	1380 Water St.
Lomita Gasoline	L	L	A-9 (Rm. in end of Tr. shd.)
Long Beach Terminal Co. (Amorient Oil)	L	L	1920 Lugger Way
Madison Interseas	L	L	
Maersk Line Pacific Inc.	L	L	G-228, 229
Marine Metals, Inc.	L	L	Warehouse #5
Marine Terminals	L	L	920 Pier "A" Avenue
Metropolitan Stevedore Co.	L	L	G-212-215
National Gypsum Co.	L	L	Channel, Berth 83
Pacific Maritime Ser. (PCT)	L	L	J-245-246
Sealand Ser.	L	L	G-227-230
United States Lines	L	L	G-230

L = BY LESSEE
H = BY HARBOR DEPT.

TABLE 9

LESSEE Powell River-Alberni Sales Corporation

LEASE AREA 1570 West Eighth Street

H. D. BUILDING NO. Whse #6 (Bldg 230) MAP REFERENCE HD 3-123

COST OF UTILITY SERVICES TO BE PAID BY: [L] ELECTRICAL [L] GAS [L] WATER [L] JANITOR [L] TRASH

DUTY TO REPAIR OR MAINTAIN: [H] HARBOR [L] LESSEE

CARPENTRY	[L] Inside	[H] Outside	
ELECTRICAL	[L] Inside	[H] Outside	
FIRE PROTECTION	[L] Inside	[L] Outside	
GROUNDS	- - -	* [H] Outside	(Paving)
PAINTING	[L] Inside	[H] Outside	
PLUMBING	[L] Inside	[L] Outside	

SPECIAL PROVISIONS:

1. Subject to the duties and responsibilities of the City as otherwise provided herein, Lessee accepts the premises "as is", and covenants that it will during the term well and sufficiently repair, maintain, cleanse, amend and keep the premises with the appurtenances in good and substantial repair, and all fixtures and things thereto belonging, which at any time during the term shall be erected and made, when, where and so often as need may be, excepting reasonable wear and tear and damage by fire, earthquake, flood, lighting, tempest, Act of God, or by or arising as a result of war, riot, civil disturbance, vandalism, sabotage or explosion, and any repairs due to damage to, or deterioration of, or lack of repair of the structure or foundations or walls or roof of the premises, except where such damage has been caused by the negligence of the Lessee, its officers, agents or employees.

City agrees that upon receipt of written notice from Lessee of the necessity thereof, it will make, at its sole cost and expense, all structural and exterior repairs, including all repairs to the roof, exterior walls, floor, pilings and pavement, resulting from ordinary wear and tear and action of the elements, and except for reasonable wear and tear and action of the elements, City shall have no obligation to make any repairs or perform any maintenance; provided, however, where damage is caused by the negligent or intentional acts of Lessee, its employees, officers or agents, City may make all necessary repairs, and Lessee shall reimburse City only for the reasonable cost of that portion of such damage as is directly attributable to said negligent or intentional acts.

All fire protection sprinkler systems, fire hydrant systems, standpipe systems, fire alarm systems, portable fire extinguishers and other fire-protective or extinguishing systems or appliances shall be maintained by Lessee at all times except where repairs or replacements are occasioned by normal wear tear, which shall be the responsibility of the City.

Terminal Safety Provisions

Other sections of this text have addressed vessel safety and, in particular, the roles of the Coast Guard, the Port Pilots, the City and various other government agencies in Port safety. Three agencies are principally involved on a day-to-day basis enforcing safe operations in the Port. These include, first, the Harbor Department through its Wharfinger and Security personnel, second, the Long Beach Fire Department through its field officer assigned to the Port, and, third, the Coast Guard through its Captain of the Port's officers.

Principal private on-line responsibilities for terminal safety rest with the stevedoring companies and terminal operators. In order to obtain a clearer understanding of the hazardous material handling safety concerns at the terminals, the Port invited representatives of stevedoring companies, terminal operators, and the Coast Guard to participate in a discussion of their respective roles in promoting safety (See Exhibit 13). In addition, participants were requested to submit information regarding any safety plans and procedures which they typically utilize with respect to hazardous materials (See Exhibits 14 through 17, and Appendix C).

HAZARDOUS MATERIAL HANDLING SAFETY MEETING
Measures and Plans

Held in the Harbor Administration Building on May 15, 1979 between the L. B. Harbor Port Staff and Stevedoring Companies

Participants:

W. A. Hartmann, Safety Officer	Harbor Department
Dr. John Bollinger, Environ. Mgmt.	" "
Adolph Zetterberg, Asst. Dir. Operations	" "
Joe Chesler, Environ, Mgmt.	" "
Jeane Loy, Safety Secretary	" "
Dick Kolodziejski, Safety Officer	Crescent Terminals
Lt. N. S. Porter	U. S. Coast Guard
Bart McGhee	Pacific Maritime Assoc.
Al Ames	" " "
Gene Borg	Metropolitan Stevedore
Bob Raymond	" "
David Hoppes	Marine Terminals

Mr. W. A. Hartmann, Port Safety Officer called the meeting to order, introduced the participants and made a few remarks on the purpose of the meeting. He presented Dr. John Bollinger, coordinator of the Port Risk Management Plan, who proceeded to outline the Coastal Act mandates for the Port Master Plan. He stressed that the California Coastal Commission had conditioned the certification of the Port Master Plan upon completion of a Risk Management Plan. He indicated that the Coastal Commission certification was essential to provide the Board of Harbor Commissioners with authority to approve Coastal Development Permits for Port developments. This would provide local control, and reduce long delays in the bureaucratic process.

He further pointed out that the Port is currently engaged in the first phase of the Risk Management study, which involves gathering information on hazards in the Port and existing safety measures and plans.

After the latter brief introduction a discussion ensued which is summarized below.

Mr. Dick Kolodziejski of Crescent echoed the positions of the other representatives of the stevedores by indicating that he had received inadequate notice of the meeting and was not prepared to present any documentation on safety at this time.

Mr. Hartmann re-emphasized that in order to call this meeting it was necessary to have Mr. Frisch of P.M.A. make the contacts and explain what the meeting was about. Unfortunately a sufficient explanation was not issued.

Hazardous Material Meeting

Dick Kolodziejski indicated that in all the years that he has worked in the Port this was the first time in his recollection that a collective meeting of representatives of stevedoring companies had been called by the Harbor Department. Bob Raymond of Metropolitan suggested that this could be an opportunity to improve communications on Port safety issues.

A number of problems were identified including:

1. Insufficient notification of contents of foreign containers.

2. Dangerous cargo manifests are not always correct.

3. If containers are unmarked as to hazards, no special safety measures are taken. Also, with hazardous containers handling procedures do not differ significantly.

4. Stevedores expressed grave concern about exposure to asbestos and other carcinogens. They refuse to handle asbestos unless properly packaged in metal drum or rigid containers. Bags of asbestos are easily punctured by forklifts causing exposure.

5. Supervisors of stevedore crews are trained in safety requirements but not always all dock workers.

6. Many containers are improperly labeled but there is no way of knowing short of checking the contents, which is seldom done. Containers may contain many different items.

7. There is confusion and inconsistencies among various regulations and authorities. Some say you must unload and store commodities in a specified way, and others say you shall not.

8. Stevedores believe there is deliberate misrepresentation of commodities by shippers in order to economize and facilitate processing.

9. Stevedores would like to see more support from the Port in coordinating safety and getting more uniform standards.

10. There is currently no direct procedure to notify the Port of a spill. Reports are sent to D.O.T. in Washington.

11. The Port of L.B. does not, according to the stevedores, have designated people to go to all facilities to check handling of hazard material. Reference was made to Monte Gentile, Port of L.A. Warden, who acts as a liason between stevedores

Hazardous Material Meeting

and various regulatory agencies. In the Port of L.B. there is some confusion as to who has responsibilities for notifying whom. Mr. Zetterberg stressed that our Harbor Security office does have a complete procedure for handling and reporting our accidental spills of all kinds.

12. Some concern was voiced regarding the inadequacy of the existing "pay phone" system available at most terminals for any emergency calls. These phones are either out of order or in use and are, therefore, not available should emergencies arise. A direct line to the Fire Department or Port Security was suggested. Mr. Hartmann pointed out that Port Security has a direct line to the Fire Department.

Dr. Bollinger acknowledged the problems that were cited, but indicated that for the purpose of this study he would like the group to respond with some of the hazard material handling measures, procedures, and training provisions which are currently implemented by the stevedores. A number of these measures were identified as follows:

1. Safety officers for various stevedore companies provide hazardous material handling packets when they receive adequate notice of the pending arrival of various hazardous materials according to C.F.R. 49 hazardous classes. A sample of this packet is to be provided for our review.

2. Notices of hazardous cargo shipments are required by the Coast Guard, Cal/OSHA, Fed/OSHA, D.O.T. and other agencies prior to shipment.

3. While stevedore companies compete, they cooperate closely when it comes to a hazardous material incident or spill, and are willing to exchange needed information.

4. When a spill occurs they immediately remove their personnel until they can identify the substance. Then they work to minimize risks and take extreme precautions. They contact each other and notify key government authorities such as the U.S. Coast Guard or Long Beach Fire Department.

4. a. Many of the companies utilize private industrial hygienist consulutants to advise them whenever hazardous materials are to be received or when there is an accidental spill.

5. They do not open a container unless and until they know what is inside, because if it is cyanide gas vs. talcum powder, they may not be prepared. They must know what the material is in order to deal with a spill.

Hazardous Material Meeting

6. They prefer to go to a single source for coordination and regulations rather than many sources.

7. Mr. A. B. Zetterberg, Assistant Director of Port Operations, indicated that the Port has rejected some hazardous materials due to packaging and handling inadequacies, such as sulphur clinkers.

8. Employees are instructed that if they break up a container they should immediately notify their supervisor, and notify all nearby employees if any leaks or damage occur.

9. When employees come to work they are given a notice of safety procedures, and for those who are illiterate a "gangway talk" on safety is provided by the supervisor. Language may be a problem in some cases, however,

10. The hazardous material handling packet mentioned above may be accompanied by various protective gear appropriate to the specific hazard, such as masks, coveralls, fresh air tanks, and other kits.

11. A hazardous material documentation discrepency sheet, which logs the time of exposure and other on-site conditions, is also provided with the hazardous material package.

12. Outside specialists are usually called in to clean up hazardous material spills.

The stevedores made a number of recommendations for improving Port Safety as follows:

1. Provide direct emergency phone hookups to Fire Department from terminals and paint the telephone numbers on a wall in a conspicious place.

2. Provide a coordinator to facilitate interagency notification and response in case of emergencies.

3. Support the creation of standardized and unified safety regulations.

4. Facilitate improved communication between Port and stevedores on safety concerns.

Mr. Hartmann suggested that another meeting be scheduled on May 21, 1979 at 10:00 a.m. at which time safety plans and related materials would be submitted by the stevedoring companies. A number of the participants suggested that some of the other private companies should also be represented, indicating Cooper, CSC, ITS, Sales Brothers, Matson, etc.

The meeting was adjourned

Compiled by Dr. John Bollinger

JB:jml

PORT OF LOS ANGELES

PORT WARDEN DIVISION

STANDARD OPERATING PROCEDURE

SUBJECT: Handling of Radioactive and/or Fissile Materials

Port of Los Angeles - Tariff No.3 - Section 1392

No person shall store, keep, handle, use, dispense or transport at, in, or upon any facility or other property under the jurisdiction and control of the Board of Harbor Commissioners of the City of Los Angeles, any special nuclear material, including, but not limited, to Uranium 233, Uranium 235, Plutonium 239, Plutonium 241; any source material, including, but not limited to, uranium and/or thorium; any irradiated fuel elements; any new reactor fuel or elements thereof; any radioactive waste material; or any radioactive material moving under special permit or escort without at least 48 hours' prior written notice to and receipt of special permit from the General Manager of the Los Angeles Harbor Department, provided, however, that only advance notice is required for the movement of medical or industrial isotopes other than those specifically included in the aforementioned, when packages, marked, labeled and limited as to quanity and radiation emissions in accordance with Interstate Commerce Commission and United States Coast Guard regulations relating to the transportation of explosives and other dangerous articles.

The requirements of this Item shall be in addition to the requirements of all laws and regulations promulgated by other governmental agencies exercising jurisdiction over radioactive and/or fissile materials.

California Admisistrative Code - Title 17
Article 3 - Section 30373

30373 INTRASTATE TRANSPORTATION REGULATIONS

No person shall transport any radioactive material outside the confines of his facility or other authorized location of use, or deliver any radioactive material to a carrier for transportation, unless he complies with the applicable requirements of the regulations, appropriate to the mode of transport, of the United States federal government (10 CFR Part 71; 49 CFR Parts 170-189; 14 CFR Part 103; 46 CFR Part 146; and 39 CFR Parts 14 and 15) insofar as such regulations relate to the packaging of radioactive material, marking and labeling of the packages, loading and storage of packages, placarding of the transportation vehicle, monitoring requirements and accident reporting. Physicians are exempt from the requirements of this section to the extent that they transport radioactive material for use in the practise of medicine.

In the Los Angeles County Area the agency which controls radioactive material is the Los Angeles County Health Department, Radiological Service Division.

A. Requirements for Export

1. Forty-eight (48) hour prior notice to Los Angeles Harbor Department (Port Warden Division) and Special Permit issued prior to delivery to Port.
2. Prior to delivery to Harbor destination a certification of safety from:

   Los Angeles County Health Department,
   Radiological Service Division,
   313 North Figueroa, Los Angeles, 90012,
   Phone: Day-974-7891 Night-974-1234

3. Material to be packaged as to United States Department of Transportation Specifications.
4. Material to be delivered as close to vessel's departure time as possible.
5. If possible, material to be loaded directly from vehicle to vessel. If material is held at Terminal prior to loading, time limit shall be twenty-four (24) hours. Material shall be held in an isolated area and protected at all times.
6. A Deputy Port Warden shall moniter delivery and loading or storing of material as required.
7. Notification of arrival time and location shall be made to Los Angeles City Fire Department (Fire Prevention Bureau Phone 548-7531) and United States Coast Guard (Captain of the Port Phone 590-2341).
   Copy of permit to be sent to both agencies.

B. Requirements for Import

1. Prior to material being unloaded from vessel a certification of safety shall be obtained from Los Angeles County Health Department. If not possible to certify on vessel it shall be certified immediately upon unloading.
2. Material shall be packaged as to United States Department of Transportation specifications prior to transport.
3. Prior to arrival, notification shall be made to Los Angeles Harbor Department (Port Warden Division), Los Angeles Fire Prevention Bureau and United States Coast Guard (Captain of The Port).
4. Material shall, at all times, be monitered by supervisory personnel and kept secure and isolated as per instructions of No.#5 under Exports.

C. Requirements for Accident or Mishap Incidents

1. Clear area of all personnel immediately.
2. Notify Los Angeles Harbor Department (Port Warden Division Phone 548-7892), Captain of The Port, and Los Angeles Fire Department so that a security zone can be established around scene as soon as possible.

Continued Page 3

3. Notify Los Angeles County Health Department, Radiological Service Division, Phone: Day-974-7891 Night-974-1234.

   Notify Shipper of material if possible, major companies maintain emergency unit for such incidents.

4. Steps to be taken to make the area safe shall be set by the Los Angeles County Health Department offical responding to the scene.

LAWS REGARDING RADIOACTIVE MATERIAL

California Admisistrative Code - Title 17

Section 30281 Security & Fire Protection of Stored Material
Requires material to be locked up and protected during storage.

Section 30294 Report of Theft or Loss
Requires immediate report by phone to State Health Department and confirmation by letter, 714 "P" Street, Sacramento, CA

Section 30295 Report of Incident

A. Immediate report to State Health Department if exposure serious, loss of one week work of facility, or dammage is in excess of $100,000.

B. Twenty-four (24) hour notification if exposure is minor, loss of one day work or more of facility, or damage is in excess of $1,000.

Code of Federal Regulations - Title 49

Section 177.842 Material in Motor Vehicle-Trailer-Storage Location
Amount limited to total of transport index numbers taken from individual packages and not to exceed fifty (50).
Distance to persons set by table in this section based on total of transport index numbers from packages.

Section 173.393b Foreign Package
Requires material to be registered with Department of Transportation, Office of Hazardous Materials upon entry to country.

Section 176.710 Mishap on Vessel

a. Fire-Collision-Breakage Material segregated from unnecessary contact with persons.
Obvious leakage or inside container appears damaged-area isolated so as to prevent contact in any way with persons.
No one to handle or stay in area unless supervised by qualified personnel.

b. Hold or compartment in which mishap has occurred shall be decontaminated before use again, Section 176.715.

Section 177.861 Accidents on land
Requires carrier to notify Shipper.
Same procedure as in Section 176.710.

Section 171.15 Report required
Report required by carrier to Department of Transportation of incident (accident-droping-breakage-etc) Railroad 174.45 - Vessel 176.48 - Vehicle 177.807.

PORT OF LOS ANGELES

PORT WARDEN DIVISION

HAZARDOUS MATERIALS STORAGE GUIDE

FOR BREAKBULK IN TRANSIT sheds

TECHNICAL CREDITS

Pacific Maritime Ass.
Mr. Allen Ames

U.S. Coast Guard
Ens. John Kopeck

L.A. Fire Prevention Bureau
Insp. Roger Shouse

L.A.H.D. Port Warden Div.
Capt. E.C. Henry

	Flammable Compressed Gases	Nonflammable Compressed Gases	Flammable or Combustible Liquids	Flammable Solids Combustible Materials	Flammable Solids Labeled Spontaneously Combustible	Flammable Solids Labeled Dangerous When Wet	Oxidizers	Organic Peroxides	Class A Poisons	Class B Poisons or Irritating Materials	Corrosive Materials	Other Regulated Materials (ORM)	Organic Materials
Flammable Compressed Gases	-	0	2	1	2	1	2	3	1	1	3	1	0
Nonflammable Compressed Gases	0	-	2	0	1	0	0	2	1	1	3	1	0
Flammable or Combustible Liquids	2	2	-	2	2	2	2	3	2	2	3	1	0
Flammable Solids Combustible Materials	1	0	2	-	1	1	1	2	2	2	3	1	0
Flammable Solids Labeled Spontaneously Combustible	2	1	2	1	-	1	2	2	2	2	1	1	0
Flammable Solids Labeled Dangerous When Wet	1	0	2	1	1	-	2	2	2	2	1	1	0
Oxidizers	2	0	2	1	2	2	-	2	1	1	2	1	0
Organic Peroxides	3	2	3	2	2	2	2	-	2	1	2	1	0
Class A Poisons	1	1	2	2	2	2	1	2	-	0	2	1	2
Class B Poisons or Irritating Materials	1	1	2	2	2	2	1	1	0	-	2	1	2
Corrosive Materials	3	3	3	3	1	1	2	2	3	3	-	1	2
Other Regulated Materials (ORM)	1	1	1	1	1	1	1	1	1	1	1	1	0
Organic Materials	0	0	0	0	0	0	0	0	2	2	2	0	-

LEGEND: 0 - No segregation required.
1 - 15 feet with inert cargo between or 30 feet separation.
2 - 30 feet with inert cargo between or 60 feet separation.
3 - Separate buildings or separation to either ends (not sides) of building.

On No. 1 & 2 fire wall divider with fire door closed may be used in lieu of required separation.

FOREMEN'S GUIDE TO
SEGREGATION OF BREAKBULK HAZARDOUS MATERIAL (SHIP)

I. Legend

A. On Deck

(0) No segregation required
(1) 10 ft separation
(2) 10 ft separation
(3) Separate by one hatch length
(4) Separation by vessel's bridge or superstructure
(*) Consult with supervision on stowage of explosives

B. Under Deck

(0) No segregation required
(1) 10 ft separation
(2) Separate 'tween deck holds or separate hatches
(3) Same hatch but one 'tween deck hold intervening or separate hatches with one hatch intervening
(4) Separate hatches with one hatch intervening
(*) Consult with supervision on stowage of explosives

		1(A)	1(B)	1(C)	2(A)	2(B)	3	4(A)	4(B)	4(C)	5(A)	5(B)	6(A)	6(B)	7	8	9
EXPLOSIVES A	1(A)	*	*	*	4	2	4	4	4	4	4	4	2	2	2	4	0
EXPLOSIVES B	1(B)	*	*	*	4	2	4	3	3	4	4	4	2	2	2	2	0
EXPLOSIVES C	1(C)	*	*	*	2	1	2	2	2	2	2	2	1	0	2	2	0
FLAMMABLE COMPRESSED GASES	2(A)	4	4	2	---	0	2	1	2	1	2	4	0	0	2	1	0
NONFLAMMABLE COMPRESSED GASES	2(B)	2	2	1	0	---	2	0	1	0	0	2	0	0	1	0	0
FLAMMABLE OR COMBUSTIBLE LIQUIDS	3	4	4	2	2	2	---	2	2	2	2	3	2	0	2	1	0
FLAMMABLE SOLIDS	4(A)	4	3	2	1	0	2	---	1	1	1	2	0	0	2	1	0
FLAMMABLE SOLIDS LABELED SPONTANEOUSLY COMBUSTIBLE	4(B)	4	3	2	2	1	2	1	---	1	2	2	1	0	2	1	0
FLAMMABLE SOLIDS LABELED DANGEROUS WHEN WET	4(C)	4	4	2	1	0	2	1	1	---	2	2	0	0	2	1	0
OXIDIZERS	5(A)	4	4	2	2	0	2	1	2	2	---	2	0	1	1	2	0
ORGANIC PEROXIDES	5(B)	4	4	2	4	2	3	2	2	2	2	---	2	1	2	2	0
CLASS A POISONS	6(A)	2	2	1	0	0	2	0	1	0	0	2	---	0	1	0	0
CLASS B POISONS OR IRRITATING MATERIALS	6(B)	2	2	0	0	0	0	0	0	0	1	1	0	---	0	0	0
RADIOACTIVE MATERIALS	7	2	2	2	2	1	2	2	2	2	1	2	1	0	---	2	0
CORROSIVE MATERIALS	8	4	2	2	1	0	1	1	1	1	2	2	0	0	2	---	0
OTHER REGULATED (ORM) MATERIALS	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	---

II. Special Notes

A. The following commonly handled cargoes are required to be stowed the same as flammable solids:

(i) Cotton
(ii) Hay
(iii) Fibers (baled) such as jute, hemp, kapock, sisal, etc.

B. This is only a guide for minimum separation distances for breakbulk hazardous materials. Personnel responsible for assigning proper stowage of hazardous materials must comply with 49 Code of Federal Regulations Parts 100-199.

C. 49 CFR 100-199 may require a more stringent segregation for particular hazardous materials than this guide.

D. When in doubt, ask proper supervision and/or check with chief mate.

SAMPLE

HAZARDOUS MATERIALS

HANDLING PACKET

HAZARDOUS MATERIAL PHTHALIC ANHYDRIDE (SOLID)

EXHIBIT 16

HAZARDOUS MATERIALS HANDLING

NOTIFICATION

YOU WILL BE HANDLING A CARGO CLASSIFIED AS "HAZARDOUS".

Handle the packages carefully, avoid damages. In the case of leaks or spills, notify supervision IMMEDIATELY and DO NOT TOUCH THE CONTENTS.

Read instructions on the labels or packages. When personal protective equipment is provided, USE IT.

Work Safely,

MARINE TERMINALS CORPORATION

IMPROPER DOCUMENTATION REPORT

(TO BE COMPLETED WHEN IMPROPER DOCUMENTATION WAS PROVIDED)

DATE: _____

HAZARDOUS MATERIAL(S)

CONTAINER NO., IF ANY: _____

CONSIGNEE: _____

CONSIGNOR: _____

BRIEF DESCRIPTION OF DEFICIENCIES: _____

_____

_____

_____

CORRECTIVE ACTION TAKEN OR RECOMMENDED: _____

_____

_____

_____

_____

SIGNED: _____

HAZARDOUS MATERIALS HANDLING REPORT

BERTH: _____ TERMINAL: _____ SHIP: _____ DATE: _____

HAZARDOUS MATERIAL(S) HANDLED: _____

HANDLING PROCEDURE: _____

_____

_____

CONDITION OF CARGO: _____

_____

_____

ROUTINE PRECAUTIONS TAKEN: _____

_____

_____

_____

PERSONAL PROTECTIVE EQUIPMENT PROVIDED: _____

_____

_____

_____

DID THE MEN WEAR THE GEAR PROVIDED? YES NO

WERE THE MEN GIVEN THE HAZARDOUS MATERIALS NOTIFICATION SHEETS? YES NO

NUMBER OF MEN EXPOSED: _____

HOURS OF EXPOSURE: _____

EMERGENCY PROCEDURE NECESSARY? YES NO

IF SO, WHAT WERE THEY? _____

_____

_____

MISCELLANEOUS INFORMATION: _____

_____

_____

HAZARDOUS MATERIAL INFORMATION SHEET

DATE NOTIFIED: 3-10-78

DATE TO BE HANDLED: 3-15-78

DATE I.S. SENT: 3-12-78

HAZARDOUS MATERIAL: PATHALIC ANHYDRIDE (SOLID)

SYNONYMS: PHTHALANDIONE

HAZARDOUS ANALYSIS:

TOXICITY: SLIGHT → MODERATE → MATERIAL IS A SKIN IRRITANT. It CAN be harmful when Ingested OR Inhaled

FIRE/EXPLOSION HAZARD: (1) Slight fire hazard, CAN react with Oxidizing materials (2) MODERATE EXPLOSION HAZARD when dusts are exposed to flames (3) FIGHT FIRES WITH WATER, DRY CHEMICAL, OR CO_2

COUNTER MEASURES:

PROTECTIVE CLOTHING/EQUIPMENT: (1) rubber Aprons (2) goggles OR face shields (3) rubber gloves (4) 8710 DUST MASKS

OPERATION PROCEDURES: (1) ~~rubber aprons~~ Our BEST DEFENSE Against exposing employees is good packaging. CAUTION THE MEN TO HANDLE WITH CARE. If machines are used be careful

EMERGENCY PROCEDURES: FOR LARGE SPILLS OR LEAKS Remove THE MEN FROM the AREA AND CONTACT the Safety Department

CHECKLIST FOR THE SAFE HANDLING OF HAZARDOUS MATERIALS

1. PLAN AHEAD. If possible, before the cargo arrives, you should learn as much as you can about the hazardous commodity you will be handling.

2. LEGAL REQUIREMENTS. You must know the State, Federal and Coast Guard standards governing the material.

3. INFORM THE MEN. It is required by law that, all supervisors, foremen, and workers be informed that they are handling hazardous materials. Have them read the labels.

4. ROUTINE SAFETY PRECAUTIONS. Be sure that the proper safety precautions are taken. Have the men been provided with necessary personal protective devices and are they wearing them? Caution the men as necessary.

5. EMERGENCIES. Whenever possible, the steps necessary to properly handle any spills or leaks must be ascertained prior to handling the commodity. If not possible, whenever a spill or leak is discovered, immediately remove the men from the area until the proper precautions can be learned and taken.

WHERE TO FIND THIS IMPORTANT INFORMATION (Order of Priority)

1. CONTACT: DAVID HOPPES - MARINE TERMINALS SAFETY DIRECTOR

2. CONTACT: PACIFIC MARITIME ASSOCIATION TRAINING AND ACCIDENT PREVENTION DEPARTMENT -

   DAY: 835-0171

   NIGHT: HANK FRISCH - AREA SUPERVISOR OR CALL ANSWERING SERVICE
   830-1600 Code 901

3. FOR EMERGENCIES (24 hours/day)
   CONTACT: CHEMTREC - (800) 424-9300

Section 6
PROPERTY STATUS INVENTORY

The Harbor Department acts as the landlord for all municipally owned lands located within the Harbor District. These Port lands are made available by leases, assignments, etc. to various tenants who in turn provide facilities and services for the shipping industry. This "landlord" role allows for flexible siting of Port tenants depending on their land and berth use requirements. It also enables the Port to determine the term and type of lease and the liability requirements of its tenants. Since these terms and conditions are relevant to the management of hazardous uses in the Port, an inventory has been compiled of the lease status of these tenants which handle bulk quantities of hazardous materials in the Port (Table 10).

The Port also issues permits for the installation and use of pipelines within its jurisdiction. Since in many cases these pipelines carry petroleum products, an inventory of major pipeline permits and a brief description of their location and other characteristics has been compiled (Table 11). Reference to applicable Harbor Department documents has been included to provide further details.

PROPERTY STATUS INVENTORY

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
THUMS (Oil Production)	16,927 Sq. ft. at 880 Windham Avenue.	3 yrs. 2 months Lease Expires April 1, 1980 w/4 five year lease options	$1,000,000 CSL No Bond.
THUMS (Oil Production)	37,976 sq. ft. land area at 1205 W Broadway (oil delivery site).	Lease agreement with options. Expires on December 31, 1980, with option to renew.	$500,000/$1,000,000 BI, $200,000 PD or $1,000,000 CSL. No Bond.
THUMS (Oil Production)	17,753 sq. ft. at 240 S. Harbor Scenic Dr. for electrical substation.	10 year lease, option to renew for 4 additional terms of 5 years each, plus a 5th term of 4 yrs. and 1 month,	$500,000/$1,000,000 Bodily injury, $2,000,000 Property damage. No Bond
THUMS (Oil Production)	Pier J Drill sites, J1 to J6 580,372.77 sq. ft.	10 year lease. Expires on June 30, 1982, w/options to renew.	$1,000,000 CSL No Bond
THUMS (Oil Production)	Marine Terminal at 1280 Pier G Avenue (Berth 216) 138,488 sq. ft. of water area.	10 year lease with options to renew. Expires Feb. 29, 1981	$1,000,000 CSL No Bond

TABLE 10

PROPERTY STATUS INVENTORY
(CON'T)

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
THUMS (Oil Production)	36,544 Sq. ft. building and adjacent parking area at 840 Van Camp St. 78,998 sq. ft. total area.	27 year lease with options. Expires March 31, 1986.	$500,000/$1,000,000 BI, $200,000 PD or $1,000,000 CSL - 100% Fire Policy by City. No Bond.
FOREST TERMINALS CORP. (Lumber Products)	Berth 6 Parcel I, (293,179 sq. ft) at 911 Pier A Avenue, and Parcel III (12,870 sq. ft., including bldgs. HD 107 & 171 at 961 Pier A Ave.	5 year Preferential Assignment with option for 5 additional years. Expires March 31, 1980.	$1,000,000 CSL and $1,330,000 FFL. Bond guaranteed by Crown Zellerbach.
POWELL RIVER-ALBERNI SALES CORPORATION (Lumber & Newsprint).	Pier 2, Berths 52, 53, 54 and adjacent water. Land, 187,896 sq. ft. incl. excl. certain offices and parking areas.	5 year Preferential Assignment Agreement Expires March 31, 1983.	$2,000,000 CSL. No Bond
POWELL RIVER-ALBERNI SALES CORPORATION (Lumber & Newsprint).	Warehouse No. 6 (Bldg. HD-230) 109,853 sq. ft. plus 110, 683 sq. ft. yard area, 1570 W. 8th Street.	5 year lease. Expires March 31, 1983 or upon termination of PAA.	$2,000,000 CSL. No Bond.

TABLE 10 - Cont.

PROPERTY STATUS INVENTORY

(CON'T)

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
THUMS (Oil Production)	3,938 sq. ft. water area and 76,601 sq. ft. land area for parking and boat landing at 1400 S. Harbor Scenic Drive.	4 years, 4 months with options. Expires on June 30, 1982.	$500,000/$1,000,000 BI and $250,000 PD. No Bond.
TEXACO, INC. (Marine Terminal, Petroleum)	Berths 84-87 Channel 2, Parcel I-181,784 sq. ft., Parcel II, 242,622 sq. ft., Parcel III, 24,928 sq. ft., Parcel IV 12,005 sq. ft.	40 year lease. Expires October 31, 2006.	$500,000/$1,000,000 BI, $500,000 PD, 9% Average clause - Fire No Bond.
KOPPEL (Bulk Grain Terminal)	117,596 sq. ft. of land area and buildings thereon at 1130 Panorama Drive, Berths 210-211 Pier A West.	15 year lease. Expires August 31, 1993.	$5,000,000/$10,000,000 BI, $1,000,000 PD or $10,000,000 CSL & Fire $14,000,000. $50,000 Bond
EXXON (Petroleum)	Berths 209 1200 Panorama Dr., 202,153 sq. ft. land in 4 parcels. Also license, option and right of first refusal for bunkering pipelines.	Lease and license agreement. Expires June 30, 2010	No Insurance. No Bond.

TABLE 10 - Cont.

PROPERTY STATUS INVENTORY

(CON'T)

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
POWERINE OIL CO. (Petroleum Storage)	43,500 sq. ft. water and 288,409 sq. ft. land at 1405 W. 7th Street. Berths 72, 73 & 74.	5 year lease with 2 five year options. Expires April 30,1980	$500,000 combined single limit and fire. No Bond.
NATIONAL MOLASSES (Molasses Terminal	97,707 sq. ft. at 984 Pier A Avenue; Pipeline right-of-way to Berths 5-6 and secondary berth assignment at Berths 209-210 Berths 242,243	20 year lease and license ageement. Expires August 31, 1992.	$1,500,000 CSL with $25,000 deductible and 90% average clause fire. No Bond
CANAL INDUSTRIAL PARK, INC. (Automobile Terminal)	98,150 sq. ft. of land at 387 Harbor Scenic Way and 13,600 sq. ft. at 1539 Harbor Scenic Way.	10 year lease. Expires November 30, 1982.	$500,000/$1,000,000 Bodily injury, $100,000 Property damage. No Bond.
BAKER COMMODITIES INC. (Animal Fats)	46,129 sq. ft. at 530 Pier D Avenue and Pipeline Right-of-Way. Berths 31, 32.	6-year lease. Expires January 1, 1981.	$1,000,000 CSL and Fire. No Bond

TABLE 10 - Cont.

PROPERTY STATUS INVENTORY
(CON'T)

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
CHEVRON, USA (Petroleum Coke Storage)	Berth 96. 197,820 Sq. ft. at 1140 Pier G Avenue, Right of first refusal on adjoining 85,490 sq. ft. (Parcel II)	10 year lease with 10 year option. Option excerised 10-26-78. Expires May 4, 1979.	$500,000/$1,000,000 BI, $500,000 PD. No Bond.
COOPER STEVEDORING CO., INC. (General Cargo Handling)	Berths 7, 9, 10 and 201. 708,825 sq. ft. at Berths 9 & 10 and 201, Pier A-170,240 sq. ft. transit shed and 538,585 storage area.	2 year Preferential Assignment Agreement. Expires October 31, 1980.	$2,000,000 CSL & $1,000,000 FLL. No Bond
CRESCENT TERMINAL (Steel Handling)	Berths 206, 207 763,205 sq. ft. including transit shed.	7 year Preferential Assignment Agreement. Expires June 30, 1980	$500,000/$1,000,000 Bodily Injury, $100,000 Property damage, $1,000,000 fire Legal Liability. No Bond
FREMONT FOREST PRODUCTS (Lumber Products)	277,700 sq. ft. and building, HD-246 at 1993 Edison Way and Berth 84 back area.	90-day Revocable Permit. Expires on revocation.	$500,000/$500,000 BI; $25,000 FLL No Bond.

TABLE 10 - Cont.

PROPERTY STATUS INVENTORY
(CON'T)

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
INTERNATIONAL TRANSPORTATION SERVICE (Cargo Container Terminal)	1281 Pier J Ave. Water 402,500 sq. ft. (3 parcels) and Wharf: 176,500 sq. ft. (3 parcels). Berths 232-234	5 year Preferential Assignment Agreement with options. Expires 5-31-82 with 2 5 year options remaining.	$1,000,000 CSL and $1,000,000 FLL. No Bond
LONG BEACH TERMINAL CO. (Petroleum Storage)	234,799 sq. ft. land area at 1920 Lugger Way Storage shed at Berth 83 and pipeline right of way to Berth 83.	10 year lease with option for 3 additional 10 year terms. Expires 9-30-87 with option on 180 days' notice or 4-3-87.	$500,000/$1,000,000 BI; $200,00 PD, Fire 90%. $100,000 Bond.
MADISON INTERSEAS INC. (General Cargo Handling)	Pier F, Berths 203-205 - 642,238 sq. ft. of open paved area and adjacent water area and 180,000 sq ft. of transit shed.	10 year marine lease. Expires 12-31-88	$300,000 CSL and $500,000 FLL. $275,000 Bond.
METROPOLITAN STEVEDORE CO. (Cargo Hanlding Petroleum Coke)	Pier G, Berths 212-215. 705,737 sq. ft. Parcels I-V	5 year Preferential Assignment Agreement. Expires May 31, 1981 with holdover	$2,000,000 CSL and $500,000 FLL. No Bond.

TABLE 10 - Cont.

PROPERTY STATUS INVENTORY

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
SEALAND SER. (Cargo Container Terminal)	1,592,265 sq. ft. (PCL IA at Berths 227-228, Pier G Including adjacent water area. Option on Parcels IB and IC (1,287,508 sq. ft.) on 1,095 days notice not before 7-1-83.	25 year Preferential Assignment Agreement. with options to renew Expires 1-15-98	$500,000/$1,000,000 BI, 250,000 PD, 2,000,000 FLL and $500,000/$1,000,000 PD and 200,000 PD Auto. Bond guaranteed by McLean Industries.
SEALAND SER. (Cargo Contianer Terminal)	Cranes No. 450 and 451, Berth 230.	Preferential Assignment. Expires 12-31-98 with option for 5 more years.	$500,000/$1,000,000 BI; 250,000 PD or $1,000,000 comb. single limit and $1,500,000 FLL. No Bond
SEALAND SER. (Cargo Container Terminal)	719,546 sq. ft. at 669 Panorama Drive - Rail & truck terminal.	20 year lease with 2 5 year options. Expires 3-31-91 with options.	90% fire, $1,000,000 FLL, $500,000/ $1,000,000 BI, $50,000 PD. No Bond.
UNITED STATES LINES (Cargo Container Terminal)	Marine Container Terminal and 22.23 acres (968,409 sq. ft.) Berth 230.	5 year Preferential Assignment Agreement. Expires 12-31-78.	$500,000/$1,000,000 BI, $250,000 PD or $1,000,000 CSL and $1,000,000 FLL. and Auto-$250,000 Liability and $200,000 Bond.

TABLE 10 - Cont.

PROPERTY STATUS INVENTORY

RENTER (REMARKS)	LOCATION & BERTHS	TERM & TYPE EXPIRATION	INSURANCE & BOND
ATLANTIC RICHFIELD COMPANY (Petroleum Storage)	1300 W. 8th St. (Berth 78-80) 785,600 sq. ft. land area 90,459 sq. ft. water area.	40 year permit Expires 12-31-94	$500,000/$2,000,000 BI. $2,000,000 P.D. No Bond.
ATLANTIC RICHFIELD COMPANY (Petroleum Coke Storage)	1155 Pier G. Avenue 81,520 sq. ft. land area Easement from wharf.	10 year lease with three 10 year options expires 12-31-79.	$500,000/$1,000,000 BI. $500,000 P.D. No Bond
ATLANTIC RICHFIELD COMPANY (Petroleum, Marine Terminal)	300 Pier E Ave. 896,409 sq. ft. land area. Sufficient adjacent water area.	35 year lease. Expires 12-31-94	$500,000/$2,000,000 PL. $2,000,000 P.D.

TABLE 10 - Cont.

PIPELINE PERMITS

OPERATOR	PIPELINE PERMIT NUMBER	DESCRIPTION	DOCUMENT NUMBER
ATCHISON, TOPEKA & SANTA FE		21" storm drain 8th & pico.	HD-1059
ATLANTIC RICHFIELD COMPANY		R/W easement for 10" line on PDA. 14" & 24" lines to Pier E lease. Crude oil line #48-Parcel A to Watson Refinery. 7th St. Across HEF area. 7th & Harbor Avenue, dated 6-18-56.	HD-1454 HD-398 HD-518
BAXTER,J.H. & COMPANY	73-1	8" Sewer Line on 8th Street	
BUREAU OF FRANCHISES AND PUBLIC UTILITIES		Lomita Gasoline Company, LBOD, LACFCD, Mobil, Procter & Gamble, Union Oil.	
CANAL INDUSTRIAL PARK, INC.	75-2	Water & elec., Pier J.	
CHAMPLIN PETROLEUM COMPANY	70-4	West side of Pier E.	
COAST GUARD	74-3	4" sewer, Berth 16 to Pier B. Submarine cable from Pier J to breakwater light.	 HD-1456
COOPER STEVEDORING CO., INC	73-3	2" phone duct, Pier F.	

TABLE 11

PIPELINE PERMITS

OPERATOR	PIPELINE PERMIT NUMBER	DESCRIPTION	DOCUMENT NUMBER
DEPARTMENT OF OIL PROPERTIES	68-2	Pier J Water injection lines.	
EDGINGTON (NEW EDGINGTON CORPORATION)	65-4	Oil facilities	
EXXON COMPANY, USA	69-3	El Embarcadero to 7th Street	
GENERAL TELEPHONE COMPANY	70-2	Pier A, Gerald Desmond Bridge	
GULF OIL CORPORATION	65-3	10" oil from Edison West on 8th to U.P. Property.	
LOMITA GASOLINE COMPANY	66-7 66-11 66-12	(Assigned from Mobil) gas gathering system, oil facilities. Wet gas. 12" wet gas. Pico & El Embarcadero. 4" & 10" wet gas along Ocean. 12-18-61. 10" on Mitchel between Seaside & Santa Cruz. 2-27-61 8" Water St., NE of 3rd & Mitchell, 2-27-61. 3 to 16" near 9th and Harbor Ave. B of F - gas in Harbor Ave. & So. of 9th & Water St. Dedicated Streets).	 HD-629 HD-312 HD-324
LONG BEACH OIL DEVELOPMENT COMPANY	66-5	Sup. 1-36. Pier G relocation.	

TABLE 11 - Cont.

PIPELINE PERMITS

OPERATOR	PIPELINE PERMIT NUMBER	DESCRIPTION	DOCUMENT NUMBER
LONG BEACH TERMINAL		From tank farm @ 1920 Lugger Way and Texaco @ Berth 83.	
LOS ANGELES COUNTY FLOOD CONTROL		B of F, Dedicated Streets, 9th to Channel #2.	
LOS ANGELES DEPT. OF WATER AND POWER	68-4	12-3/4" oil along 5th St. in N. Harbor District.	
MOBIL OIL CORPORATION		B of F for lines in dedicated streets in Harbor.	
	66-8	Unit oper. Blks. IV 7 V, Seg. II General Facilities	
	67-3	Unit operator, water injection fac., Seg. II, Blks, IV & V Unit.	
	68-3	Oil lines between 8th & 9th Sts. West Coast Pipelines.	
	68-1	Unit Oper. FB IV & V Ranger Zone Unit, Wilmington Oil Field. 3" lines, So. of Seaside on Pier E for FBIV handling of Signal & Termo.	
PACIFIC LIGHTING SERVICE & SUPPLY COMPANY	69-2	10" gas from Lomita Plant to West City Limit.	
PACIFIC TOWBOAT & SALVAGE	75-1	Elec. conduit from Edison transformer to lease @ D35.	

TABLE 11 - Cont.

PIPELINE PERMITS

OPERATOR	PIPELINE PERMIT NUMBER	DESCRIPTION	DOCUMENT NUMBER
PETROLANE-LOMITA GASOLINE COMPANY	65-2	Gas lines.	
POWERINE OIL COMPANY	67-1	Pier A to 7th Street oil. 6" 7 8" lines from 7th to 10th Streets.	HD-1136
PROCTER & GAMBLE		B of F water supply across 7th Street in dedicated street.	
QUEEN MARY DEPARTMENT	71-1	Memorandum Agreement, Pier J	HD-2124
SHELL OIL COMPANY	66-2	Thums Bdwy. Terminal to 9th Street	
SOUTHERN CALIFORNIA EDISON COMPANY	74-2 71-2	Sewer line to Terminal Island 4" conduit on Pier E.	
STANDARD GAS COMPANY	71-1	Z-1 No. 2 Tank from Carrack Avenue & 8th Street.	
STANDARD OIL COMPANY		Water source line, Ocean Blvd. Bridge	HD-1154
TEXACO, INC.	66-4	8" crude from Thums Bdwy. to West Line of City.	

TABLE 11 - Cont.

PIPELINE PERMITS

OPERATOR	PIPELINE PERMIT NUMBER	DESCRIPTION	DOCUMENT NUMBER
THE TEXAS COMPANY		6" oil at Seaside Boulevard dated 2-6-58.	
THUMS LONG BEACH COMPANY	65-1	24" oil & phone from J6 to Broadway & Mitchell Pier J to oil islands Pier J (Sup. 1-16) Submarine cable & lines to offshore islands (1966) Cathodic protection system for pipelines & submarine cables (1966) Temporary lines on Pier J	HD-1247 HD-1962 HD-1356 HD-1200
UNION OIL COMPANY OF CA	66-3	10" oil from Thums Bdwy. Term. to 9th & Anaheim. B of F pipeline attached to Anaheim Bridge. (1952)	
UNION PACIFIC		6" crude oil on Terminal Island Permit to City for Waste Disposal Line	HD-536 HD-845

TABLE 11 - Cont.

Section 7
INTER-AGENCY COORDINATION

The management of risks, public safety, health and welfare, and emergencies has been the pursuit of various levels of government in response to the growing and changing needs as reflected in legislative mandates. Numerous federal, state, regional and City agencies maintain authority and responsibilities for management of specific types of risks affecting the Port. Among federal agencies exercising risk management authority on particular Port developments and operations are the Environmental Protection Agency (EPA), Corps of Engineers, The Maritime Administration, Fish and Wildlife Service, Bureau of Land Management, U.S. Customs Service, Food and Drug Administration, The Federal Aviation Administration (FAA), the Federal Commerce Commission (FCC), Coast Guard, and the Federal Energy Administration (FEA). The Coast Guard and the Army Corps of Engineers are among the federal agencies charged with domestic emergency response authority which have developed and maintained emergency contingency plans for military actions, flood, oil spills, vessel collisions, nuclear disaster, earthquake and other major naturally and artificially caused emergencies.

Among state agencies exercising risk management authority on particular Port developments and operations are the Coastal Commission, Energy Resources Conservation and Development Commission, Water Resources Control Board, Air Resources Board, Department of Fish and Game, Department of Navigation and Ocean Development, Division of Mines and Geology, Division of Oil and Gas, State Lands Commission, Division of Industrial Safety, Governor's Office of Planning and Research, Public Utilities Commission. The State Office of Emergency Preparedness, formerly called the California Disaster Office has developed and maintained an "Emergency Resources Management Plan" for civil defense in the event of attack. The Office of the Governor in 1974 certified the "State Oil Spill Contingency Plan" which was to be followed up with a separate hazardous materials contingency plan. The Department of Fish and Game has prepared the "Oil and Hazardous Materials Contingency Plan" of 1974 with the aim of protecting living resources from oil and hazardous material impacts.

On a regional level, agencies such as the Southern California Air Quality Management District (SCAQMD), Regional Water Quality Control Board, Los Angeles County Flood Control District, County Road Department, County Department of Facilities, County Engineer, and County Department of Sanitation exercise some risk management authority over particular Port-related facilities and operations. The SCAQMD reviews permits for conformance with air quality rules and regulations. They have also established a multi-episode alert program whereby particular industries, businesses, and organizations are required to put into effect plans for reducing and eliminating levels of air pollution emission by cutbacks or suspensions of operations,

car pooling, and/or other specified means. Los Angeles County is actively pursuing the development of an oil spill contingency plan and coastal energy plan under the Coastal Energy Imapct Program. Los Angeles County and cities within its jurisdiction have been required to prepare emergency operation plans which derive their authorities from Public Law 81-920, as amended, California Emergency Services Act, California Mutual Aid Agreement, and California Emergency Resources Management Plan. County emergency operations are governed by the County Disaster and Civil Defense Ordinance, County Charter, County Administrative Code, and Orders and Administrative instructions of the Board of Supervisors.

City Risk Management Authority

The City of Long Beach has pursued risk management activities and plans as required by state law and mandated by the City Charter and the Municipal Code. The following text discusses some of the more significant activities and plans of City agencies in this regard.

Public Safety Element

The City Council and the City Planning Commission in 1975 adopted the Public Safety Element as part of the Long Beach General Plan as mandated by California Government Code Section 65302.1. This document identified and discussed significant public safety issues relevant to the General Plan including fire protection, geologic hazards, crime prevention, utility related hazards, industrial and transportation hazards, and disaster operations. The intent of this discussion was to incorporate public safety considerations into the overall planning process, to suggest methods for maximizing public safety, to recommend means and measures to reduce probabilities of loss resulting from various hazards, to increase the sense of security and well-being of citizens through public information, and to assist public safety officials.

Management, development, protection and remedial action goals are enumerated in the document and it is pointed out that these have been formulated to be accessible to alteration, update, deletion, or addition in response to changing circumstances within the City. Risk management is defined in terms of division of responsibility, functional definitions, and a survey of acceptable and unacceptable risks.

Public safety responsibilities are subdivided into four organizational groups as follows:

1. Planning and preventive groups.

2. Action-oriented groups (i.e., handling the immediate crisis).

3. Resource groups (i.e., assisting immediate crisis).

4. Recovery groups (i.e., administrative assistance with grants, aid, programs, etc).

Risk management activities in the City are defined in the document as encompassing a set of eight functions which expand upon the original application, i.e., the evaluation of insurance needs and programs. These functions are as follows:

- Identifying hazards with a significant potential to create large financial losses;
- Prioritizing hazards as to potential loss, extent of risk, and remedial costs to reduce the hazards;
- Estimating economic effects of predictable losses;
- Establishing insurance needs in view of probable loss;
- Designing insurance coverage that meets the particular needs of the City;
- Continual risk re-evaluation based upon new or changing exposures to employees or the general public;
- Coordinating safety activities with safety personnel working in the private sector (i.e., work closely with harbor and airport safety experts to assure safe operations on the ground as well as reducing potential risk to nearby residents);
- Establishing mechanisms to accumulate funds to pay losses.

In order to provide a qualitative evaluation at the policy state of acceptable and unacceptable risks, the City prepared a list of thirty-two potential risks and surveyed the opinions of 48 separate City departments and private organizations with some expertise and association in matters of public safety. The result is not a factual analysis of the level of risk, but an authoritative subjective evaluation of the significance of potential risks to public safety.

The Public Safety Element presents immediate action and long term recommendations for improvement of risk management and public safety. The immediate action recommendations include the following: bringing old buildings up to code, attaining a Class I fire rating, relocating fire stations for efficiency, undergrounding of power lines and transformers, equipping freeways with call boxes, establishing an emergency telephone system, and establishing a risk management program. Long term recommendations include the following: replacement of unsafe structures with new developments, planning for lower density, providing safe and adequate access, attracting less

hazardous industries, enforcement of seismic codes, providing for senior citizens and handicapped, increasing park surveillance, improving street lighting, police participation in the planning process, and isolating incompatible land uses.

Long Beach Emergency Plan

The City Council adopted the "Emergency Plan of the City of Long Beach" by Resolution C-21063 effective December 10, 1971. This plan was prepared and is being carried out pursuant to the Long Beach Municipal Code, Article II, Chapter 3, Part 5, as amended.

The Emergency Plan prescribes the organization and operations of the Long Beach Emergency Organization. The Plan specifies the duties and responsibilities of the departments and employees of the City government. In addition, it complements the Los Angeles County Emergency Operations Plan, and it derives authority from various federal, state, and County emergency legislation on which the Municipal Code mandate has been based. The Emergency Organization may be activated fully or partially by proclamation of the President of the United States, the Governor of California, the City Manager, or their authorized representatives. Command of the Organization is vested in the City Manager or his official representative.

The general policy assumption of the Emergency Plan is that emergency or disaster response capabilities must be largely automatic, requiring a dynamic state of readiness. Therefore, City resources shall be applied in the most efficient manner possible to save lives and property, and to preserve the constitutional form of government. Specific policies are promulgated with respect to coordination of services by the Police Department, responsibility for preparation and operations, the role of City employees, the identification of key personnel and their duties, and the roles of volunteers and other persons impressed into service during an emergency.

Although the aim of the overall Plan is to provide for a state of readiness for any major emergency, particular annexes of the plan respond to given types of hazards. Annex C addresses the management of emergency response in the school system under potential threats from fire, explosion, earthquake, tsunami, bomb threat, falling aircraft, panic, or nuclear attack.

Annex D addresses the alternative locations of the Emergency Operating Center in cases of natural disaster or radioactive fallout. Annex G addresses radiological defense. Annex I addresses the management of emerengency response from blast, heat, and radiation from nuclear attack. Annex J addresses emergency response services in case of fire, explosion and panic.

Annex L address the economic stabilization and management of service and material resource during an emergency. Annex O

addresses law enforcement and traffic control services during a calamity of disaster proportions. Annex P addresses public works and engineering services to maintain lifelines for gas, water, electricity, food, petroleum service, transportation, supply, communication, street and road systems, sanitation and building serviceability. Annex S addresses building and safety services in inspecting structures for safety and habitability under conditions of widespread damage and destruction due to natural or war caused disasters. Annex T addresses oil spill contingency operations in the City at large. Annex V addresses civil disturbances which are either spontaneous, deliberate or both. Annex W addresses war emergency operations.

The role of the Harbor Department is discussed as a unique entity of the Emergency Organization. In the event of war, the mission assigned to the Harbor Department by the federal government preempts any assignment made by the City. The Harbor Department, under these circumstances, will be controlled and directed by the United States Maritime Administration of the Department of Commerce in so far as maritime operations are concerned, although the Port is charged with its own civil defense protective actions and providing assistance to the City in its civil defense activities as much as possible.

The Port is charged with furnishing management and technical staffs for fallout shelters in its facilities, providing radio links with the City Emergency Operations Center (EOC) and mobile radios for emergency communication, and management of the operational radiological reporting network within its jurisdiction. In the event of a natural disaster, the services of the Harbor Department are to be utilized as necessary to help meet the needs of the City.

Risk Management Activities of City Agencies

In addition to the City-wide risk management plans cited above, particular departments and agencies of the City are charged with administration and enforcement of requirements for hazard prevention and emergency response. The Planning and Building Service is responsible for land use planning, zoning administration, environmental analysis, subdivisions, planning, building and safety permit review and approvals, and structural inspections. The Engineering Department reviews projects for structural and traffic safety, water quality, and sewer, storm drain and other substructural adequacy. The Public Service Department plays an active role in maintaining City services such as roadways, lighting, public structures, equipment and properties, and in managing waste disposal services for the City.

The Health Department provides services to protect the health and welfare of the citizens of Long Beach, including disease control, animal control, mosquito abatement, and health services for the disadvantaged. The Water Department manages water distribution and is concerned with maintaining potable water quality. The Aeronautics Department manages airport and aircraft operations in

the City and in cooperation with the FAA coordinates the flight paths, takeoffs, and landings of aircraft utilizing City facilities. The Department of Oil Properties manages oil spill containment, subsidence, and geological risks relative to existing, new and expanded oil and gas facilities in the City, and reviews and City permits for projects in the Alquist-Priolo Seismic Hazard Zone.

Both the Police Department and the Fire Department play major roles in enforcement of public safety measures and emergency response operations. The Police Department has expanded its activities in recent years with respect to crimes from apprehension, suppression, rehabilitation, and security to more active involvement with the application of advanced planning techniques to crime prevention. The Crime Prevention Bureau of the Police Department was estalished for this purpose.

The services of the Fire Department encompass fire fighting and prevention within the City both on land and in local coastal waters. The Bureau of Fire Prevention of the Fire Department inspects sites, buildings and other facilities throughout the City to determine whether hazards exist, whether codes and regulations are being conformed to, and it initiates enforcement where necessary.

The Fire Department maintains an "Emergency Operating Procedure" which addressed activation, authority, organization, duties and responsibilities, civil disturbance guidelines, and resource management in case of emergencies. Management authority and operations cover risks from hazardous chemicals, oil spills, explosions and radioactive materials, although some responsibilities are delegated to other agencies and private organizations with special capabiliies when the need arises. The City Fire Department is party to Mutual Aid agreements with other jurisdictions in the eventuality that an emergency becomes more than one jurisdiction is capable of handling. Paramedic services constitute another major capability of the Fire Department for responding to accidents and injuries.

San Pedro Bay Navigational Operating Procedures/Regulations and Practices

The Ports of Long Beach and Los Angeles control their operations, pursuant to State Charter which includes pilotage, wharfage, dockage, and other rules and regulations, through published tariffs. These tariffs cover the basic operational process characteristic of each Port. The pilotage service currently available within the Port of Long Beach is in compliance with all mandates set forth by these tariffs and the United States Coast Guard.

Pilot Services Offered on San Pedro Bay:

It is significant to note that approximately 95 percent of all major ship traffic is handled by three pilot organizations servicing San Pedro Bay:

1. U.S. Navy Pilots hired by the federal government for handling naval vessels, exclusively.

2. Los Angeles Harbor Pilots - Civil servants hired by the Port of Los Angeles to handle vessels in that Port.

3. Long Beach Harbor Pilots - Provided by an independent pilotage contractor per terms of the Long Beach Harbor tariff to handle vessels in the Port.

All of the pilots operating in San Pedro Bay are licensed by the United States Coast Guard and in the event of a mishap, are subject to investigation proceedings by the Coast Guard.

Port Safety Council

When problems of marine-related safety needed to be resolved, a body, consisting of representatives of both industry and government, is convened to eliminate problems. Although currently inactive, the Port Safety Council met and was responsible for initiating use of a closed-circuit teletype system, discouraging the building of yacht marinas in congested channel areas, and establishing procedures for alerting mariners to hazardous conditions in both harbors.

Piloting Requirements of the Port of Long Beach

In 1851 the Congress of the United States passed its first law establishing the requirements for federally licensed pilots. At the present time oil vessels on coastwise voyages and all U. S. Registered vessels must have a federally licensed pilot onboard while navigating in inland water and harbors of the United States.

As a matter of practice, due to the risk involved, all seagoing vessels, foreign and coastwise have licensed pilots onboard. Most ship's masters use the services of Port-provided contract pilots, however some of the masters of coastwise vessels, prefer to do their own piloting and have the proper endorsement on their master's license.

The Long Beach Harbor Department maintains a force of municipal pilots, pursuant to a contract with an independent pilotage contractor, to perform the service of piloting vessels within, into and out of the Port of Long Beach. Any vessel entering, leaving or shifting within the Port may request the services of and be piloted by a municipal pilot.

That force, the Jacobsen Pilot Service has been the contract pilot for he Port of Long Beach since 1923. The Harbor Department recently renewed Jacobsen's contract for pilotage services until 1987.

The contract with Jacobsen requires that all pilotage shall be performed in accordance with all applicable rules of navigation and regulations imposed by the United States Government, or any governmental agencies having jurisdiction over Port navigation and safety. Jacobsen is required to comply with all applicable laws, ordinances, and regulations enacted by federal, state, city or other governmental agencies.

The two agencies that have authority in the Port with regard to navigation are the Harbor Department and the United States Coast Guard (USCG). The USCG Captain of the Port has the ultimate authority regarding matters of navigational and operational safety. By advice and information from vessel agents, marine exchange, marine terminals and the pilot station, the Operations Division of the Harbor Department is kept aware of vessel movements, arrivals and departures and any unusual operational problems regarding vessel and cargo movements. In matters involving Port safety considerations, under the authority of the General Manager of the Harbor Department, the Operations Division may intercede and confer with vessel officers, terminal operators, and/or shipping agents as to the procedures to be followed during the vessel's visit to the Port.

The Port Pilot must adhere to all tariff items concerning navigational safety outlined in the Port of Long Beach Tariff No. 3. This tariff includes such items as the duties and responsibilities of the Pilot and the ship's master, the types of vessels that are subject to pilotage, the basis for computing pilotage charges, the regulations regarding the movement of ships in the Main Channel and turning basins, the handling of mooring lines, and the speed of vessels navigating within Port jurisdiction.

In addition to the Port tariff, all vessels must follow the inland and pilot Rules of the Road established by law, and administered by the United States Coast Guard, These are specifically spelled out in the United States Coast Guard, Navigation Rules, International-Inland (CG-169, May 1, 1977). All Jacobsen pilots hold a First Class Unlimited Pilots License issued by the United States Coast Guard, and

Port of Long Beach Pilots are assigned to vessel movements in accord with their proven proficiency.

Vessel movements in the Harbor, especially those of the larger tanker vessels, are well programmed before any movement takes place. In the case of the larger tankers, a notice of arrival is received days ahead of the actual arrival. Vessel size, i.e., length, draft, beam, tonnage, type of cargo, and other pertinent factors are researched, and pilotage preparation initiated. Berth considerations and limitations are evaluated, as well as tidal conditions and movements of other vessels which could effect the handling of the large tanker; this yields a coordinated safe mechanism for moving vessels.

Communications

A prime factor of any successful traffic system is communications. VHF radio was introduced in this area in 1951. A brief summary of radio communications presently in service in San Pedro Bay is as follows:

Marine Exchange

Channel 16	156.8 MHZ,	Calling and Safety Frequency
Channel 12	156.6 MHZ,	Long Beach Pilot Working Frequency
Channel 14	156.7 MHZ,	Los Angeles Pilot Working Frequency
Channel 9	156.45 MHZ,	Business Operation Frequency.

They can also receive, but not transmit, on Channel 13, 156.65 MHZ, ship to ship frequency. Channel 16 is guarded 24 hours per day, even when working on another frequency.

Los Angeles Pilot Station guards continuously:

Channel 16	156.8 MHZ,	Calling and Safety Frequency
Channel 14	156.7 MHZ,	Los Angeles Pilot Working Frequency

Long Beach Pilot Station guards continuously:

Channel 16	156.8 MHZ,	Calling and Safety Frequency
Channel 12	156.6 MHZ,	Long Beach Pilot Working Frequency
Channel 74	156.725 MHZ,	Long Beach Pilot Working Frequency

Pilots of both ports carry "handi-talkies" and guard Channel 65, 156.275 MHZ. A second frequency enables them to communicate with their respective pilot station. They also have the capability of

transmitting and sending over Channel 13, which is the designed ship-to-ship channel. The Port of Long Beach maintains a radio system, KMB 593, for communications between tugs, Harbor Security and Harbor Maintenance vehicles, etc...

The U.S. Navy currently has VHF capability and can communicate on the local working channels. Additionally, the Long Beach pilot service has established a secondary radio antenna on top of San Pedro Hill which enables the Pilot station to communicate with arriving vessels up to 90 miles north and south of the Port of Long Beach. This system affords a means of alerting the ship master on traffic patterns, rendevous point with the pilot, and other pertinent information relevant to ship arrival.

All local tug boats have communication capabilities on Channel 65; thus, all pilots and tugs are linked by a common frequency.

Closed Circuit Teletype System

This system was initiated in 1968 through the Port Safety Council and effectively links the key operational centers in San Pedro Bay, which are:

a. United States Coast Guard Captain of the Port

b. U.S. Navy Control

c. Marine Exchange

d. Los Angeles Pilot Station

e. Long Beach Pilot Station/Jacobsen Pilot Service, Inc.

f. Los Angeles Port Wardens

The purposes of the system are:

a. To exchange, between the subscribers, daily ships' schedules within, to and from the Los Angeles/ Long Beach harbors in order to promote the safe, orderly flow of ship traffic in the harbors.

b. To handle urgent and emergency messages between the various subscribers.

c. To provide a rapid means of communication by responsible authorities for the coordination and control of ship movements during emergencies.

This system has proven to be extremely effective and has become an instantaneous Notice to Mariners within the Harbor.

Hot Line

The Long Beach pilot station is linked to the Harbor Security office by a "Hot Line", or no dial telephone.

Traffic Control and Routing Schemes:

Traffic flow patterns represent one of the most effective means of achieving ship safety. Several traffic schemes are presently in effect in San Pedro Bay.

a. Vessels approaching or departing the ports are advised by National Oceanic and Atmospheric Administration (NOAA) Coastal and Harbor charts that vessels entering Los Angeles or Long Beach Main Channel should pass eastward of respective "sea buoys" and vessels departing should pass westward.

b. The Port of Long Beach Tariff No. 3 establishes a restricted area in the most critical portion of the Long Beach Main Channel. Traffic flow is regulated in this area by two mid-channel buoys and all vessels must govern their movements in accordance with prescribed regulations.

c. All vessel traffic entering and exiting San Pedro Bay are directed to utilize specifically designated shipping lanes. These lanes (one mile in width) are designated both north and southbound and have a two-mile separation zone.

d. Areas outside the Middle and Long Beach breakwaters are designated for the boarding of port pilots.

e. Turning Basin Buoys are properly placed within the Port of Long Beach.

f. United States Coast Guard Control of Special Vessels - Pursuant to 33 CFR 160, the United States Coast Guard maintains the position of exercising complete control over special vessels, e.g., very large crude carriers and liquefied gas carriers and Port operations when deemed necessary by the Captain of the Port.

Vessel Speed

Speed of vessels is regulated by local tariff provisions. The Port of Long Beach speed regulations are as follows:

a. The Port of Long Beach Tariff No. 3 provides that: It shall be unlawful for any person to navigate any vessel within any portion of the Port of Long Beach inside the Middle and Long Beach Breakwaters at a speed greater than six (6) nautical miles per hour, subject to exceptions 1 and 2.

   Exception 1. Vessels drawing more than five (5) feet of water may navigate at a speed not greater than ten (10) nautical miles per hour in that portion of the Outer Harbor not included in the Harbor restricted area as defined in item 1285.

   Exception 2. Vessels drawing less than five (5) feet of water may navigate at a speed not greater than fifteen (15) nautical miles per hour in that portion of Outer Harbor not included in the Harbor restricted area as defined in item 1285.

b. Notwithstanding any rule or regulation herein contained with respect to speed of vessels, it shall be unlawful for any person to operate any vessel in a reckless or negligent manner, or in any manner, so as to endanger any other vessel or mooring facility or the life, limb or property of any person.

Anchorage Procedures:

Anchorage procedures were implemented and initiated through the action of the Port Safety Council as a result of a longshoreman strike in 1971 which caused severe congestion for vessels at anchor in San Pedro Bay. Congested anchorage positions were drawn and charts issued to all interested parties.

Each commercial vessel that is scheduled to go to anchor is assigned a specific anchorage by the respective pilot station. The assigned anchorage is transmitted to all parties by the closed circuit teletype. In this way, all underway vessels are aware of locations of anchored vessels; this is especially important during periods of limited visibility. Those vessels not utilizing a pilot call the Jacobsen Pilot Service for vessel traffic and anchorage information.

Fog/Limited Visibility

Conditions/Shore Based Radar

Decca radar displays are located at pilot stations in Long Beach and Los Angeles. During periods of reduced visibility, vessel

movements are monitored and advisory information which includes traffic reports and ship heading checks, is relayed to pilots on vessels underway. The displays are manned by pilots during periods of reduced visibility.

The handling of vessels in reduced visibility condition is predicated upon several factors including:

a. Regulation as prescribed by "Rules of the Road".

b. Assessment of the ambient situation by the ship master and pilot.

Under existing laws and court precedence, any deviation from the traditional ship master/ship decision-making relationship would be inadvisable. It is the belief of the Harbor Department and its pilotage contractor that the persons most qualified to make proper decisions for a particular ship movement at a particular time are the ship master and the ship pilot. The mission of any shore advisory station should be to provide these people with the latest and most accurate supplementary information.

Local Emergency Rules and Regulations

There presently exist several rules and regulations covering specific emergency conditions, such as:

a. Merchant Vessel Dispersal Plan, December 8, 1956.

b. Permits for the handling of explosives as issued by the Long Beach Harbor Department, Fire Department, and the U.S. Coast Guard.

c. The Port of Long Beach and Los Angeles emergency operating plans.

d. City of Long Beach, Fire Department, "Tankship Cargo Lightering and Transfer to Other Vessel Operations in Long Beach City Limits" Regulations.

Proposed Pilotage Service Improvements

Communications

The need for an adequate and efficient means of communication to implement an effective traffic system is apparent, but the portion of the radio spectrum assigned by the Federal Communication Commission (FCC) to the marine industry is limited.

For comparative purposes, there are approximately 230,000 radio licenses issued by the FCC to vessels. Radio licenses issued for use by aircraft amount to approximately one half of that number. Yet, there are only 38 VHF frequencies available for marine use compared to a minimum of 360 talking channels in the 108 to 136 MHZ range available for the aircraft industry.

Ship Design

A great deal of study and attention must be directed toward ship and tug boat design to assure safe handling in restricted waters. Some examples of this are:

a. Newly constructed vessels should have the bridge designed so that good visibility by pilots and ship handlers is assured.

b. Sufficient cleats, bitts, and chocks provided on vessels to enable tugs to make a proper tie-up in order to get maximum maneuvering advantage.

c. The extreme flare on some vessels limits the spotting of tugs in strategic positions. The need for twin screw tugs, or the utilization of kort nozzles, flanking rudders, etc., is becomeing more critical with the increasing size and configuration of modern vessels.

d. Some foreign designed motor vessels have engines incapable of providing a dead slow speed. These are difficult to maneuver in the restricted waters of the harbor.

Navy Base Homeporting

Background

The military influence the Port of Long Beach has, had a major influence on Port growth and development since the early 1900's, when the Federal Government through the War Department and more specifically the Army Corps of Engineers started construction on the San Pedro breakwater, the Corps supported the deepening and reorientation of the Los Angeles, San Gabriel Rivers, turning basins and certain navigable channels leading to the Pacific Ocean.

In 1931, the City of Long Beach constructed landing facilities for use by the United States Navy between what was then Pier A and Pier B. These facilities included offices, waiting rooms, parking, recreation and eating facilities and service accommodations for Navy personnel. As a consequence, Long Beach became known as the home of the Pacific Fleet.

Between 1940 and 1949 the breakwater was extended easterly to provide greater protection for anchorage areas of the U.S. Navy and other proposed Port facilities.

Between the end of World War II and 1974, the Long Beach Navy Base located in the West Basin, or the area referred to in the Port Master Plan as the Federal Use District thrived. Federal policy in 1974 required the vacation of a substantial portion of Naval shore facilities in Long Beach under the "Shoreline Establishment Realignment Action of 1974". Over 16,000 personnel and dependents were transferred to other locations between 1973 and 1975, and the number of Navy ships in the Port was significantly reduced.

Currently, the Navy is proposing reestablishment of the Long Beach Naval Station as an active homeport to provide greater operational flexibility and responsiveness in meeting international crisis, domestic disasters and routime deployment situations as well as to acheive more cost effective utilization of existing shore/support facilities.

Assignment of Ships

The proposal to reestablish homeport in Long Beach will involve the initial reassignment of 12 ships in fiscal year 1980 (FY80), 11 of which will be at Long Beach undergoing Regular Overhaul (ROH). The remaining ship, (AR8) is presently homeported in San Diego. The 12 ships are manned by approximately 4,934 personnel. During the period of FY80 through FY86, 15 newly constructed ships (LHA5, DD 963 Class and FFG 7 Class) manned

by approximately 3,986 personnel will be assigned for Long Beach homeporting.

Assignment of Personnel

In addition to the homeported ships' personnel, a number of support personnel will also be reassigned to Long Beach. The staffs of a Commander Naval Surface Group; Commander Amphibious Squadron Three; Commander Destroyer Squadron Seven; and Commander Destroyer Squadron Nine consisting of 113 personnel will be relocated from San Diego to Long Beach to exercise Command and Control over the newly homeported ships. The following shore activities will be increased as indicated to support the additional force levels; Naval Support Activity, 43 military and 3 civilian personnel; Naval Regional Medical Center, Long Beach, 49 military and 40 civilian personnel; Naval Supply Center Annex, Long Beach, 47 civilian personnel; and Naval Shipyard, Long Beach (Public Works Department) 27 civilian personnel.

The 89 medical personnel are required to support increased forc levels at either San Diego or Long Beach. A number of civilian personnel would be transferred from Naval Supply Center, San Diego, to the Annex at Long Beach.

Maintenance and Supply Support

The ships homeported at Long Beach would be provided Intermediate Level Maintenance and Supply Support as follows:

Intermediate Level Maintenance - The ships will be supported by one Repair Ship (AR) and the Commercial Industrial Service (CIS) program commencing in FY80. The CIS program is designed to contract intermediate level maintenance work to the private sector when it is beyond the capacity of the Intermediate Maintenance Activities (IMA's) (AR/AD or Fleet Maintenance Assistance Group) located in a particular port. Long Beach will be added to the CIS progra in FY80 and $3 million is being included in the Commander in Chief Pacific Fleet (CINCPACFLT) FY80 budget submission to support the estimated requirement.

Five ships will be relocated to Long Beach in FY79 to commence regular overhaul. One of these ships is scheduled to complete overhaul in FY79. Subsequent to overhaul completion, and prior to FY80 commencement, this ship can be supported as the need arises by the IMA assets in San Diego for routine work, and Naval Shipyard Long Beach for emergency work. This plan will provide interim intermediate level maintenance support. The repair ship (AR 8) will be relocated to Long Beach during the first half of FY80 shwn sufficient ships are available to optimize use of this IMA asset. The exact date will be based on the regular overhaul completion rate of the ships being assigned to Long Beach as homeport.

Supply Support - Ships will be provided supply support (including general stores, repair parts and subsistence materials) by the Naval Supply Center, San Diego, via the Supply Center Annex at Long Beach. Essentially, this enhanced level of support will result from upgraded Automated Data Processing Equipment at Long Beach to provide Cathode Ray Tube Remote Terminals with direct connections to the computer at Naval Supply Center, San Diego, and increased/enhanced truck delivery schedules between San Diego and the Long Beach Annex. A total of 47 additional civilian personnel and $109,000 for Materials Handing Equipment and Automatic Data Processing Equipment will be provided at the Long Beach Annex. The SERVMART operations at Long Beach will be responsive support to the ships. Capabilities presently exist at Long Beach for providing full support in the areas of household goods and Navy Exchange/Commissary. Additionally, fuel support is available from San Pedro, and procurement support from the Navy Regional Procurement Office at Long Beach.

The basic supply function at Long Beach will be a receiving, assembling and delivery/shipping operation. No significant additional storage/warehouse requirements are envisioned.

The proposed homeporting project will not affect the efficiency of operations or the workload in the shipyard. The shipyard works on a ROH schedule established approximately three to four years in advance.

The functions of the Supply Center San Diego are static and would not change because of the homeported ships. For these reasons, the identification and analysis of significant impacts has been limited to the NAVSUPPACT.

Ordnance Handling - Coincident with the proposed homeporting of additional Navy combatent vessels at Long Beach is the necessity to handle or transfer various types of Naval ordnance. All ammunittion or explosive handling will be in accordance with the Navy and Department of Defense (DOD) standards.

These ammunition and explosives safety standards govern the separation of explosives facilities within the boundaries of Department of Defense establishments. They also govern the locations of these facilities with respect to inhabited buildings, public traffic routes, airfields (heliports/sea-dromes), etc., inside and outside the boundaries of DOD establishments.

In regard to the proposed action no sections of the surrounding civilian areas are affected by ordnance handling activities.

Section 8
PERSONS AND ORGANIZATIONS CONSULTED

HARBOR DEPARTMENT

- Al Ancheta	Operations
- Min Kato	Cheif Warfinger
- Thomas Danaher	Wharfinger
- Roger Bredenkamp	Wharfinger
- Ned Whitmer	Accounting
- Virginia Plantz	Accounting
- John Shaw	Accounting
- Gery Porter	Engineering
- John O'Shea	Engineering
- Donald Moran	Engineering

FIRE DEPARTMENT

- James B. Souders	Deputy Chief
- Eugene E. Nagel	Assistant Chief
- David Larson	Port Fire Officer
- Craig R. Halker	Fire Marshal

COAST GUARD

- Captain Walt White	Captain of the Port's Office
- Lt. Comdr. Skip Onstad	Captain of the Port's Office
- Lt. N.S. Porter	Captain of the Port's Office

PERSONS AND ORGANIZATIONS CONSULTED

PORT OF LOS ANGELES	
- Norm Arikawa	Accounting
- Pete Mandia	Planning
- Robert Weir	
COASTAL COMMISSION	
- Mike Dadasovich	Energy and Ocean Resources
- Trevor O'Neil	
- Kevin Smith	CEIP Coordinator
NON-GOVERNMENTAL	
- Dick Kolodziejski	Crescent Terminals
- Bart McGhee	Pacific Maritime Assoc.
- Al Ames	Pacific Maritime Assoc.
- Gene Borg	Metropolitan Stevedore
- Bob Raymon	Metropolitan Stevedore
- David Hoppes	Marine Terminals
- R.J. Jacobsen	Jacobsen Pilot Service, Inc.
- M.T. Bohlman	Sealand Service, Inc.

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APPENDICES

APPENDIX A
VESSEL SAFETY PROVISIONS
SUPPLEMENTAL MATERIALS

OFFICE PHONES
834-4553
775-6386

PILOT STATION PHONE
435-6354

JACOBSEN PILOT SERVICE, INC.
LOS ANGELES AND LONG BEACH HARBORS

PILOT SERVICE

U. S. FEDERAL LICENSED PILOTS

1324 NORTH AVALON BLVD.
P. O. BOX 248
WILMINGTON, CALIFORNIA 90748

GUIDELINES - CLEARANCES, DEPTHS, LIMITATIONS

A. Sea Approaches

1. Large deep draft ships should have minimum under keel clearance of 10% of the vessel's draft for safe passage of the sea approach. 5-2

2. When a heavy swell is running, attention must be given to increase of draft due to heel.

3. The following vessels should transit the approach and proceed to destination during daylight hours and good visibility.
   a. Vessels enroute to anchorages S-1, S-2, U-1. Draft 50 feet and greater.
   b. Vessels enroute to Berth #118 Draft 54 feet and greater.

4. Large deep draft vessels should not be moved with visibility less than three-quarters of a mile. Attention will be given to special instructions issued by the Captain of the Port.

B. Cerritos Channel

1. Pilots will use prudent judgement in deciding on a transit, taking into consideration the conditions existing at the time of the job; such as wind, weather, trim of vessel, draft and traffic density.

2. Vessels having a beam in excess of 90 feet should not transit the Ford Avenue and Helm Bridges.

3. Transit should not be made when a vessel is moored at Long Beach Berth #101, unless a departure from this rule is required by special circumstances and is approved by management.

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WILMINGTON, CALIFORNIA 90748

Jacobsen Pilots

December 21, 1977

Gentlemen:

As you are aware, during recent years the ships calling at Long Beach/ Los Angeles Harbors have increased a great deal in length, beam and draft. Passage of these vessels through or into certain channels and slips frequently involves close passing tolerances, timing for favorable stage of tide and coordination with other moored or moving ships.

In order to assure safest movement of vessels our pilot organization has formulated some basic guidelines relative to certain channel clearances, under keel depths, passage clear of moored vessels etc. A copy of same is attached for your perusal and reference.

These are the guidelines which our personnel will follow. We believe them to be safe and extended to practical limits. Deviation from same is not recommended, but requests for exceptions will be considered on an individual case basis. We feel strongly, however, that these provisions represent practical limits.

We trust that these guidelines will be informative, and may prove helpful in your planning of vessel movements.

Very truly yours,

R. J. Jacobsen

Jacobsen Pilot Service, Inc.

c/ KATO

D. Channel 2 - Long Beach - Continued:

3. When vessels are moored at Berth 77 and 73 at the same time:
   a. A third vessel will not be taken to or away from Berth 76.
   b. Any deviation from this rule shall be a special circumstance and subject to approval by management.

E. Long Beach Berth - 73 (Powerine Terminal)

1. Vessels assigned to Berth 73 should not exceed length 830 feet, beam 130 feet, and draft 40 feet.

2. No vessel should be assigned to Berth 73 if there is a ship at Berth 76 Or 77 and the combined beams of the two ships exceed 160 feet.

3. The time of docking at Berth 73 will be predicated upon the Tides and the draft of the vessel.

4. It is not considered prudent to pass a vessel at Berth 78 or 77 if the combined beams of the two ships exceed 185 feet and 160 feet respectively.

5. It must be born in mind that circumstances and emergency demands may justify some variance in the above limitations. Each vessel will be considered on an individual basis, keeping in mind wind, weather, tugs, pilot, etc.

6. Departure Draft:

Vessel Length	Fwd Draft	Aft Draft
500-600 ft.	15 ft.	20 ft.
600-700 ft.	20 ft.	25 ft.
700-over	25 ft.	30 ft.

F. Los Angeles Berths 165-166; U.S. Borax Facility:

1. Due to the configuration of the berths on the east side of Slip 1, Los Angeles Harbor, a large vessel moored at Berths 165-166 frequently extends beyond the North end of Berth 165 and beyond the extended pier head line of Berth 164.

C. Back Channel - Long Beach

When transiting Back Channel, particular attention will be directed toward the total combined beams of the transiting vessel plus that of a vessel moored at Berth 118.

1. Combined beam 225 - 250 feet:

   The Pilot Station will notify Pacific Towboat & Salvage Co., so that their floating equipment can be singled up. Such requests must be made sufficiently in advance to permit Pacific Towboat & Salvage to comply.

2. Combined beams of vessels 250 - 260 feet:

   It is recommended that the transit not be made if the combined beams exceed 250 feet. However, special circumstances such as weather, type of vessel, etc., may be judged sufficient to justify exceeding this limit. This shall be a decision by management.

3. A vessel will not transit if the combined beams exceed 260 feet.

4. Pilot Station personnel will endeavor to anticipate these situations as far in advance as possible. Such developments will immediately be called to the attentio of R.J. Jacobsen or designee or the appropriate Pilot Watch Captain. Necessary steps will then be taken to coordinate the intended movement so as to avoid potentially hazardous situations and minimize delays to the vessels involved.

5. When a large, deep draft vessel is preparing to transit Back Channel, while a large vessel is moored at Berth 118, the Pilot will request the dispatcher to call Berth 118 to inform the vessel so that personnel may tighten slack lines and stand by to shut down pumping in the event the vessel should surge badly.

D. Channel No. 2 - Long Beach

1. When transiting Channel 2 to the inner berths while vessel(s) are moored at Berth 78 or 77, attention will be given to the combined beams of the transiting vessel and that of the vessel(s) at the berth(s).

2. Enrouth to Berth 76:
   A vessel will not transit if the combined beams of the transiting ship and vessels at Berth 78 or 77 exceed 185 feet.

F. Los Angeles Berths 165-166; U.S. Borax Facility - Continued:

2. When an order is received to dock or undock a vessel to the North of the Borax Facility, i.e., Berths 158-159 and Berths 163-164, it is requested that one hour prior notice be given to the U.S. Borax Facility in order that a vessel berthed at 165-166 may be shifted clear.
   a. Check with the Marine Exchange or with the Borax Facility to determine whether or not a vessel is moored at Berths 165-166.
   b. If a vessel is in the berths, then notify the following who in turn will advise the master to shift his vessel:
      1. United States Borax Co., Berth 166
         Phone: 835-0121
         Mr. James Parker
         Mr. L.G. Parrish

      2. After normal working hours, notify the Foreman who in turn will notify the master.
         Phone: 835-0121

G. Los Angeles Berths 70-71 (GATX Terminal)

Keep in mind the limited depth alongside. The time of docking shall be scheduled based upon tide and draft of the vessel.

H Los Angeles Berths 38-39 and West Channel.

Attention should be given to water depths and shoaling condition in West Channel.

In order to avoid the 14 foot shoal in the western half of West Channel, vessels are cautioned to transit within the east half of the channel. Outbound heavily ladened vessels should depart only on a favorable tide.

I. Los Angeles - Berths 46/49-50

Vessels enroute to Berth 46 should transit the sea approach and berth alongside at a favorable stage of tide!

Draft should not exceed 48 feet.

Coast Guard

RELIEF VALVES

SET AND SEALED _____ BY _____ SETTING _____
(date)

GAS DETECTION SYSTEM

OBSERVE SYSTEM OPERATION AND NOTE ANY UNUSUAL READINGS _____

_____

	Yes	No
Alarms set at 30% of IEL	___	___
Audial and visual alarm at cargo control station	___	___
Log for readings during voyage	___	___
Frequency of readings and cycle time _____		

If possible, obtain a statement signed by Master concerning a history of presence or absence of any abnormal temperatures, pressures, or accumulations in tanks, voids and barrier spaces. Review voyage log for indications of emergencies (fire, engineering casualty, excessive gas venting, etc), during current voyage.

VESSEL

Yes	No	
___	___	Gauges functioning properly, calibrated
___	___	Gas detection system tested with 50% IEL span gas
___	___	Audio and visual alarms in gas detection system operable and set at 30% IEL
___	___	Quick closing valves operate and in good condition
___	___	Cargo pumps in good condition, remote shut down operable.
___	___	Fire fighting equipment and system in good condition, last hose test _____ at _____ lbs.
___	___	Flanges, expansion joints, relief valves, gauges and cargo valves show no signs of deterioration or leaks.
___	___	Intrinsically safe equipment in good condition.
___	___	Electrical cables, explosion proof lighting and switches in good condition.
___	___	No hot work or other unauthorized ship board activities.
___	___	Designated smoking areas listed and posted at gangway.
___	___	Bonding cable between ship and shore proper with bolted or "C" clamp attachment.
___	___	All ship's supervisory personnel fluently speak and understand English.
___	___	Flanges secured with bolt in every hole.
___	___	Vessel's fire system mated to facility fire system.
___	___	Temperature sensing system operable with readings logged.
___	___	Liquid level alarm system, hi and low, operable.
___	___	Current records of tests and inspections.

BOILER BURN OFF SYSTEM (LNG ONLY)

___	___	Supply piping in good condition and double walled.
___	___	Alarm system working and interlocked.
___	___	Hood for boiler front ventilation and air sweep operable.
___	___	Automatic valves in burner fuel line in working order.
___	___	Master line valve is located away from machinery spaces, automatic or manual shut down operates.
___	___	Shut down instructions posted in English and language of operating personnel.

TANKSHIP EXAMINATION CHECK LIST

The examination should not be a standard procedural action but varied to the extent necessary to assure safety. Therefore the check list should not be considered as a step by step guide to be completed at each examination but as a memory aid and a full coverage form to record facts in whatever areas the examination is made.

Date _____

Vessel Name _____ Official No. _____ Call Sign _____

Year Constructed _____ Registry _____ Last U.S. Port of Call _____

Next U.S. Port of Call _____ ETA _____ G.T. ____ DWT ____ Length ____

Type Cargo Inerting System+ _____ Type/Grade of Cargo _____

Manifest _____ Declaration of Inspection _____

Cargo/Bunker Transfer Procedures _____

Master _____

Vessel Owner _____

Address _____

Vessel Operator _____

Address _____

Agent _____

Address _____

Document	Issuing Agency	Issue Date	Expiration Date
Certificate of Registry			
Safety Equipment Certificate			
Safety Construction Certificate			
Safety Radiotelegraphy Certificate			
Safety Radiotelephony Certificate			

Inspection Office _____

Inspector _____

Signature _____

Document	Issuing Agency	Issue Date	Expiration Date
Certificate of Financial Responsibility			
Load Line Certificate			
Classification Society Certification			
IMCO Certificate			
Letter of Compliance			
Cargo Tank Pressure Relief Valve Certification (LOC LG Vessel)			
Pollution Compliance/Non Compliance Letter issued call NRC 800-424-8802			

OFFICERS COMPETENCY DATA

	NAME	TYPE OF LICENSE OR CERTIFICATE AND NUMBER	ISSUING NATION
MASTER			
CHIEF OFFICER			
SECOND OFFICER			
THIRD OFFICER			
CHIEF ENGINEER			
FIRST ENGINEER			
SECOND ENGINEER			

A. GENERAL SAFETY RULES

/__/ 1. Warning signals and signs.

/__/ 2. Cargo tank hatches, ullage holes, and Butterworth openings closed (or fitted with flame screens).

/__/ 3. Emergency Equipment.

/__/ 4. Vessel properly moored.

/__/ 5. Non-sparking tools.

B. CARGO HANDLING, BALLASTING AND BUNKERING

/__/ 1. Scuppers and sea valves closed.

/__/ 2. Cargo transfer connections.

/__/ 3. Deck Officer/tankerman on duty on deck.

/__/ 4. Intrinsically safe portable radios

/__/ 5. Additional sources of vapor ignition (Mid-Ship House and Mid-Ship house segregation space).

Weather deck doors and ports closed and dogged, gaskets, knife edges satisfactory.
Portable window-type air conditioners and fans secured.
Designated smoking areas marked and observed.
Ships ventilation ducting on weather decks, wasted, holed or flame screens defective.

C. CARGO PUMPROOMS

/__/ 1. Potential sources of ignition in or near pumproom.
Gear adrift, non-sparking tools.
Product in bilges.
Rags, paint, cleaning solvents, etc...
Excessive vapors.

/__/ 2. ELECTRICAL

Lighting fixtures explosion proof.
Electrical controls and switches located outside pumproom
Dead/ended, loose or frayed cabling.
Jury rigs such as extension cords, drop cords, etc..

/__/ 3. STRUCTURAL

Bulkheads gas tight (cracks, holes, bulkhead seals)

/__/ 4. VENTILATION

Ducting wasted or missing
Fire dampers inoperative or missing.
Flame screens dirty, corroded, missing
Operational

/__/ 5. PUMPS (cargo, bilge, ballast, stripping)
Leaking product (other than gland lubrication)
Mechanical and electrical remote operating devices attached and operational at all locations.
Suction and discharge valves and piping intact.
Gauging system (open, closed, restricted).

D. PIPING SYSTEMS (cargo, bunker, ballast, stripping).

/__/ 1. Piping
Valves
Fittings
Gaskets
Supports

E. WEATHER DECKS

/__/ 1. Expansion Trunks

Wastage of ullage coamings and trunks
Gaskets
Covers

/__/ 2. Plating (hull and superstructure)

Wasted, holed, cracks.
Leaking products or vapors into or out of vessel.

/__/ 3. Electrical Equipment

Intact and intrinsically safe for location.
Properly installed.
Deadended, loose or frayed cable
Portable electric tools intrinsically safe for location.

F. VENT SYSTEMS (Weather Decks and at Deck House entrances).

/__/ 1. Vent Piping and vent masts.

Material condition
Properly supported
Gaskets-flanges.
Valving in vent system piping.

/__/ 2. Pressure Vacuum Valves and Headers.

Free of Corrosion/dirt.
Operation.
Flame screens.

/__/ 3. Flame Screens.

Cleanliness and material condition.
On all cargo, bunker, oily ballast and oily slop tanks and void vents.
On all open ullage, Butterworth, hatch openings.

G. FIRE PROTECTION EQUIPMENT

/__/ 1. Firemain Systems

Piping, valves, pumps.
Hoses, spanner wrenches, nozzel satisfactory.
Remotes.

/__/ 2. Steam Smothering System

Valves, leaking.
Piping, wasted, missing, blanked.

/__/ 3. Deck Foam

Piping intact.
Valves.
Monitors and hose stations.
Foam.

H. LIFESAVING EQUIPMENT

/__/ 1. Satisfactory.

I. VITAL MACHINERY

/__/ 1. Satisfactory

J. NAVIGATIONAL SAFETY AND VESSEL INSPECTION REGULATIONS

33 CFR 164.33

/__/ 1. Charts of the area to be transited, published by National Ocean Survey, U.S. Army Corps of Engineers, or a river Authority (or a foreign government if containing similar information) of large enough scale to permit safe navigation, of the most recent edition available and currently corrected.

/__/ 2. Publications of the United States government or river authority (or a foreign government if containing similar information), of the most recent edition available and currently corrected, or appropriate extracts therefrom, as follows:

U.S. Coast Pilot
Coast Guard Light List
Notice to Mariners
Tide Tables
Tide Current Tables

33 CFR 164.35

/__/ 1. Marine radar for surface navigation.

/__/ 2. Illuminated magnetic steering compass

/__/ 3. Magnetic compass deviation table or graph, or comparison record

/__/ 4. Gyrocompass

/__/ 5. Illuminated steering gyrocompass repeater.

/__/ 6. Illuminated rudder angle indicator in the wheel house.

/__/ 7. Maneuvering information prominently displayed on fact sheet in wheelhouse.

/__/ 8. An echo depth sounding device.

/__/ 9. A device that can continuously record the depth readings of the vessel's echo depth sounding device.

/__/10. Equipment on the bridge for plotting relative motion.

33 CFR 164.11(q)

/__/ 1. Log entries.

/__/ Denotes Vessel Not in Compliance

K. POLLUTION PREVENTION REGULATIONS

/__/ 1. Oil Record Book-Date of Last discharge _____
Location _____

/__/ 2. 155.310 Cargo Oil Discharge Containment.

/__/ 3. 155.320 Fuel Oil Discharge Containment

/__/ 4. 155.330 Retention of Oily Bilge Slops on Board

/__/ 5. 155.340 Discharge of Bilge Slops

/__/ 6. 155.370 Ballast Discharge (Vessels That Ballast Fuel Tanks Only)

/__/ 7. 155.400 Oily Waste Processing Equipment

/__/ 8. 155.410 Oily Waste Transfer Equipment

/__/ 9. 155.470 Prohibited Oil Spaces

/__/10. 155.700 Designation of Person In Charge

/__/11. 155.710 Qualifications of Person In Charge

/__/12. 155.720 Oil Transfer Procedures

/__/13. 155.730 Compliance With Oil Transfer Procedures

/__/ 14. 155.740 Posting of Oil Transfer Procedures

/__/ 15. 155.750 Contents of Oil Transfer Procedures

/__/ 16. 155.780 Emergency Shutdown

/__/ 17. 155.790 Deck Lighting

/__/ 18. 155.800 Oil Transfer Hoses

/__/ 19. 155.820 Records

/__/ 20. 156.110 Persons in Charge (PIC)

/__/ 21. 156.120 Requirements for Oil Transfer

/__/ 22. 156.130 Connections

/__/ 23. 156.150 Declaration of Inspection (DOI)

/__/ 24. 156.160 Supervision By Person In Charge (PIC)

/__/ 25. 156.170 Equipment Tests and Inspections (Includes hoses, relief Valves, gauges, piping & remote operating or indicating equipment).

/__/ Denotes Vessel Not In Compliance

L. 33 CFR 159.7 Marine Sanitation Device

Required: YES /__/

NO /__/

PS Form 010-76

APPENDIX I

LNG/LPG INSPECTION FORM FOR
VESSELS AND FACILITIES

VESSEL NAME/FLAG _____ DATE _____

GROSS/NET TONS _____ CALL SIGN _____

LENGTH _____ OFFICIAL NUMBER _____

DOCUMENTATION

SOLAS EQUIPMENT _____ LOAD LINE _____

SOLAS CONSTRUCTION _____ CFR _____

TOVALOP _____ CRISTAL _____

CLASSIFICATION SOCIETY CERTIFICATE _____

LETTER OF COMPLIANCE DTD _____

OWNER	OPERATOR

CHARTER	AGENT

CARGO ON BOARD

NAME	STOWAGE	AMOUNT	INHIBITOR	EXP DATE

Appendix I

☐ **Atlantic Richfield Company**
☐ **ARCO Pipe Line Company**

This is No Carbon Required paper.

Terminal Rules and Regulations
Pre-Transfer Conference

Vessel	Date
Transfer facility	Location

A. I _____, Master of the SS/MS _____ (Vessel's name printed),
acknowledge receipting three copies of the Regulation for Vessels Calling at Atlantic Richfield Company and ARCO Pipe Line Company Terminals.

B. I agree to make sure that every officer standing a deck cargo or bunkering watch shall read and shall comply with these regulations.

C. I further agree to ensure that all crew members are notified where designated smoking areas are located.

D. ☐ YES — my vessel has had
☐ NO — my vessel has not had } an event or casualty during sea passage which

may give reason for concern. Refer to Terminal Regulations, Part 1, General Rules and Regulations, Section T. If my vessel has had an event or casualty during sea passage, I have given a verbal report to the Terminal Representative and I will give a written report as soon as possible.

E. I fully understand that if these Terminal Regulations are not complied with, the vessel may be asked by the terminal to immediately disconnect and leave the berth.

F. A pre-transfer conference has been held between the Terminal Representative and the Vessel Master and Chief Mate to review the following details pertaining to the transfer operations:

1. The identity of the materials to be transferred. ☐
2. The sequence of transfer operations. ☐
3. The transfer rate. ☐
4. The name or title and location of each person participating in the transfer operation. ☐
5. Particulars of the transferring and receiving systems and inerting system if equipped. ☐
6. Critical stages of the transfer operation. ☐
7. Federal, State, and local rules that apply to the transfer operations. ☐
8. Emergency procedures. ☐
9. Oil spill containment procedures. ☐
10. Oil spill reporting procedures. ☐
11. Watch or shift arrangement. ☐
12. Transfer shutdown procedures. ☐
13. Crude washing to be performed. ☐ Yes ☐ No

_____
Vessel Master signature

_____
Chief Mate signature

_____
Terminal Representative signature

Distribution: White copy — Terminal
Canary copy — Master of Vessel

A.R.CO.-1797-A
(9-78)

Appendix II

Declaration Of Inspection-Prior To Bulk Cargo Transfer

	Date
Vessel	Port of
Transfer facility	Location

The following list refers to requirements set forth in detail in 33CFR 156.150 and 46 CFR 35.35-30, U. S. Coast Guard. (see reverse side). The spaces adjacent to items on the list are provided to indicate that the detailed requirements have been met:

		Deliverer	Receiver
1. Communication system/language fluency	(156.120 (m) (p))		
2. Warning signs and red warning signals	(35.35 -30)		
3. Vessels moorings	(156.120 (a))		
4. Transfer system alignment	(156.120 (d))		
5. Transfer system: unused components	(156.120 (e))		
6. Transfer system; fixed piping	(156.120 (f))		
7. Overboard discharges/sea suction valves	(156.120 (g))		
8. Hoses or loading arms condition	(156.120 (h)) (156.170)		
9. Hoses; length and support	(156.120 (b) (c))		
10. Connections	(156.130)		
11. Discharge containment system	(156.120 (j) (i))		
12. Scuppers or drains	(156.120 (k))		
13. Emergency shutdown	(156.120 (n))		
14. Repair work authorization	(35.35 -30)		
15 Boiler and galley fires safety	(35.35 -30)		
16. Fires or open flames	(35.35 -30)		
17. Lighting (sunset to sunrise)	(156.120 (t))		
18. Safe smoking spaces	(35.35 -30)		
19. Spill and emergency shutdown procedures	(156.120 (q))		
20. Sufficient personnel	(156.120 (o) (s))		
21. Transfer conference	(156.120 (q))		
22. Agreement to begin transfer	(156.120 (r))		

I do certify that I have personally inspected this facility or vessel with reference to the requirements set forth in Section 35.35-30 and that opposite each of them I have indicated that the regulations have been complied with.

Person in charge of Receiving Unit	Title	Time and date

Person in charge of Delivery Unit	Title	Time and date

Time completed

A.R.CO.-1540 Front
(4-78)

Appendix III

☐ **Atlantic Richfield Company**

☐ **ARCO Pipe Line Company**

Ship/Shore Safety Checklist

Vessel	Port of
Transfer facility	Location

All of the below items have been inspected. Indicate Yes or No in the appropriate block after each item.	Time/Date			
1. Manifold valves or fittings, reference terminal regulations, Part 1, Section H. (Indicate N/A if not applicable.)				
2. Unused cargo, bunker, or stern discharge manifolds are fitted with blank flanges.				
3. Radio transmitter-receiver provided to vessel by terminal.				
4. Inert gas system in operation. (If vessel not equipped, then indicate N/A.)				
5. Sufficient mooring lines and properly tended.				
6. Fire hoses connected and laid out, with adequate water pressure.				
7. Portable fire extinguisher at manifold.				
8. Emergency towing wires rigged, fore and aft.				
9. Smoking regulations being observed.				
10. External accommodation doors and ports are closed.				
11. Amidship house shelter deck doors on main deck are open.				
12. All flame screens are properly fitted and in good condition.				
13. Ventilators are suitably trimmed with regard to prevailing wind condition.				
14. Ship's main transmitting aerials are switched off.				
15. Electric cables to portable equipment are disconnected from power.				
16. Window-type air conditioning units are disconnected.				
17. There has been a test of the emergency stop signal.				
18. Are there any unauthorized craft alongside?				
19. Seals have been placed on sea suctions of cargo and ballast systems.				
20. Pumproom bilges are dry and gas free.				
21. Scuppers and drains cemented or plugged				

Chief Mate's signature	Terminal Representative's signature

A.R.CO.-1800
(1-78)

APPENDIX B
INTERAGENCY COORDINATION
SUPPLEMENTAL MATERIALS

INSTRUCTIONS FOR USE OF CLOSED
CIRCUIT TELETYPE NET

1. Policy Statement

The regulations and procedures governing the establishment and use of the closed teletype circuit between Los Angeles Pilot Station, Long Beach Pilot Station, Captain of the Port, Los Angeles-Long Beach, Naval Station, Long Beach, Port Warden, Los Angeles and Marine Exchange, Los Angeles, shall be as prescribed hereunder. Changes to the policy as specified herein and as agreed to by all subscribers may be made at any time. However, such changes shall be in writing.

2. Purpose

The purposes of the subject circuit are:

(a) To exchange, between the subscribers, daily ships' movement schedules within, to and from the Los Angeles-Long Beach Harbors in order to promote the safe, orderly flow of ship traffic in the said harbors.

(b) To handle urgent and emergency messages between the various subscribers.

(c) To provide a rapid means of communication for the coordination and control of ship movements during emergencies by responsible authorities.

3. Subscribers

The subscribers to the services to be received over the closed teletype circuit are: Los Angeles Pilot Station; Long Beach Pilot Station; Captain of the Port Los Angeles-Long Beach; Naval Station Long Beach; Port Warden Los Angeles and the Marine Exchange, Los Angeles.

4. Copies, Distribution and Retention

The number of copies of ships' movement schedules, or changes thereto, produced at each station, the distribution of those copies within subscribers' organizations and the retention time of schedule records will be the prerogative of each station.

5. Security

a. No copies or reproductions of any information received over the subject teletype circuit shall be given away, sold or otherwise make known to persons or organizations other than the aforementioned subscribers, except as unanimously agreed to by these subscribers.

b. The United States Coast Guard and the United States Navy shall have authority to discontinue or change any part of the information given subscribers over the closed teletype circuit when it is their opinion that such action is required in the interest of national security.

6. Withdrawing from Closed Teletype Circuit

Any subscriber may cease providing the prescribed information on the subject circuit and may withdraw from same upon giving two weeks notice in writing to the other subscribers.

7. Payment, Personnel, Material and Maintenance for Closed Teletype Circuit

Each subscriber individually shall pay for the installation maintenance and rental of the closed teletype ciruit terminal at his station and for the personnel and material required in the operation of the circuit.

8. Operational Procedures of Closed Teletype Net

a. Call Signs

Navy Port Services Office	NV
Long Beach Pilot Station	LB
Los Angeles Pilot Station	LA
Port Warden, Los Angeles Harbor Department	PW
Marine Exchange	MX
Captain of the Port	CG

b. Times of Promulgation of Daily Ship Movement Schedules

Navy Port Services Office	0100
Los Angeles Pilot Station	0200
Long Beach Pilot Station	0300
Port Warden, Los Angeles HD	
Marine Exchange	
Captain of the Port	

c. Items to be listed on daily ship movement schedules

(1) Date

(2) Time. (Use local time, 24 hour clock. Entry represents time departing sea buoy for berth or anchorage, or time departing berth or anchorage for sea buoy or another berth).

(3) Type of vessel/name of vessel. (Note: omission of type signifies vessel is a cargo vessel. See list of abbreviations for types).

(4) Departure point (LB Sea Buoy, LA Sea Buoy, berth number or anchorage*)

(5) Destination in port (LB Sea Buoy, LA Sea Buoy, berth number or anchorage*)

*Berth number should specify LA or LB, e.g., LA 49, LB 122. Anchorage should specify area, E.G., ANC A, B, C, D, or E.

(6) Station/Sequence Number. (Station identified by call sign. New sequence started each day at 0000 local time, commencing with "1" and continuing until 2400.

(7) Remarks (e.g., dangerous cargo, limited maneuverability, via Cerritos Channel, etc.)

(8) BT (indicated end of message)

(9) Date of tranmission/time transmission completed/originated station/initials of operator

See attachment 1 for prescribed format to be used for daily ships' movement schedules.

d. Changes, Additions, Deletions to Daily Ships' Movement Schedules During Day

(1) Transmitted on teletype when they become known during day

(2) Changes shall be made to the daily ships' movement schedules if the ship's movement is off more than one hour

(3) See attachment 2 for prescribed format to be used in announcing changes to daily ships' movement schedules.

e. Authorized Abbreviations

(1) Vessel Types

TS - Tanker	BB - Battleship
TT - Tug with Tow	C - Cruiser
TB - Tanker Barge	SS - Submarine
P - Passenger Vessel	MS - Minesweeper
CV - Carrier	PC - Patrol Craft
AO - Oiler	A - Amphibious Ship
DD - Destroyer	S - Supply Ship

Note: If type omitted, assume ship is cargo vessel

(2) Miscellaneous

SEA/LA - Los Angeles Sea Buoy
SEA/LB - Long Beach Sea Buoy
EMERG - Emergency Message
URG - Urgent Me sage
V - Vice
CH - Change (Change to previous ship movement report)
CC - Cerritos Channel
BT - End of transmission

(Call Sign)/OFF NET - Station identified by call sign is going off line temporarily

(Call Sign)/ON NET - Station iden fied by call sign is back on the line

f. Conflict in Movements

(1) Any subscriber noticing a possible conflict in ships' movements which may jeopardize the safety of ships involved shall call this fact to the attention of the pertinent other subscriber and seek a resolution of the difficulty. This communication should normally be handled by telephone.

(2) By furnishing information of prospective ships' movements, the subscribers hereto do not warrant the accuracy of such information and do not intend by giving such information to advise the ship's master, Commander Officer, or pilot as to what moves he should make or when he should make them.

g. Emergency Use of Circuit

In times of emergency, transmission of routine traffic should be delayed until the emergency is over. See attachment 3 for sample of emergency transmission.

h. The end of each transmission shall be indicated by "BT" which shall be the last line of the transmission. See attachment (1) for examples.

i. Only urgent or emergency messages shall be acknowledged. See attachment 3 for format of acknowledgement.

j. The sender shall ring the bell 5 times at the end of each emergency or urgent message.

SAMPLE DAILY SCHEDULE FROM NAVY PORT SERVICES

3 AUG 68

0800	CV/YORKTOWN	SEA/LB	LB125	N1
0900	AO/NAVASOTA	9-13	LA 38	N2

*Note: Berths in Naval Base are identified by both pier and berth number, pier number first.

0915	DD/STRAUS	16-1	SEA/LB	N3	Steering trouble

BT
3 AUG/0105/NV/RB

SAMPLE DAILY SCHEDULE FROM LB PILOTS

3 AUG 68

0600	*TUSCON VICTORY	SEA/LB	ANC E	LB1	

*Note: Absence of type indicator means vessel is a cargo vessel

0630	TS/DAVID E. DAY	LB79	LA173	LB2	Via CC
0700	TT/RED STACK-BARGE	LB36	LA240	LB3	**

**Note: Absence of remark, "Via CC", means shift will be via outer harbor

BT
3 AUG/0255/LB/RJ

SAMPLE DAILY SCHEDULE FROM LA PILOTS

3 AUG 68

0700	P/LURLINE	SEA/LA	LA93	LA1	
0730	TS/TORREY CANYON	SEA/LA	LA46	LA2	47 Ft draft restricts movement to 51 Ft channel. Other vessels should keep clear.
1000	SAN JUAN EXPORTER	LA49	SEA/LA	LA3	48 Ft dra t restricts movement to 51 Ft channel. Other vessels should keep clear.

BT
3 AUG/0200/LA/JK

SAMPLE ANNOUNCEMENT OF CHANGES TO DAILY SCHEDULE

3 AUG 68

N1 CH 0830
N2 CH Cancel
N3 CH 7-2 V 16-1

1215 DD/CAPETOWN SEA/LB LB127 N4
BT
3 AUG/0700/NV/BL

22 October 1968
(ammended 28 October 19

SAMPLE URGENT MESSAGE

URGENT
FROM LA PILOTS
120 000 TON TANKSHIP MUSHIMUSHI MARU IN LIGHT
CONDITION SCHEDULED TO MOVE UNDER FLAT TOW FROM LA46
TO ANC C AT 1700. STRONG WINDS EXPECTED THEN WILL
HANDICAP MANEUVERABILITY. OTHER VESSELS SHOULD KEEP CLEAR.
BT
28 OCT/1505/LA/JM
R LB
R NV
R CG
R PW
R MX

SAMPLE EMERGENCY MESSAGE

EMERG
FROM CG
MAJOR CRUDE OIL SPILL WITH HIGH FIRE HAZARD COVERS TURNING
BASIN FROM VINCENT THOMAS BRIDGE TO MORMON ISLAND. COTP
ORDERS THAT NO SHIP EXCEPT FIRE AND EMERGENCY CRAFT MOVE IN
MAIN CHANNEL NORTH OF BERTHS LA 92 AND LA 229 OR IN EAST BASIN
CHANNEL SOUTHWEST OF BERTHS LA 176 AND LA 215 OR IN TURNING
BASIN EAST OF BERTHS LA 147 AND LA 183 UNTIL FURTHER NOTICE
BT
28 OCT/2200/CG/SR
R LA
R LB
R MX
R NV
R PW

APPLICANTS DO NOT HAVE A STANDARD FORM TO SUBMIT.

SUBMIT FIVE (5) COPIES

NOTIFICATION

DANGEROUS CARGO TRANSACTION

Date: _____

TO: CAPTAIN OF THE PORT, LONG BEACH-LOS ANGELES

Notification, in compliance with Title 33, CFR, Subpart 126.27(b) for ( ) LOADING and/or ( ) DISCHARGING Dangerous Cargo, is hereby given for:

_____

_____

NAME OF VESSEL _____ NATIONALITY _____

BERTH _____ AGENT/OWNER _____

TIME, DATE AND NATURE OF THE OPERATION _____

_____

SPECIAL PROVISIONS _____

I certify that the conditions set forth in Title 33, Code of Federal Regulations, Chapter I, Subchapter L, Subpart 126.15, will be and are complied with at the above waterfront facility during this operation.

Signature: _____

Title: _____

Mailing Address: _____

_____

ENDORSEMENT 1 Date: _____

Long Beach Harbor Department does hereby (Approve) (Disapprove) the operation as stated in basic notification subject to the following conditions:

Signature: _____

Title: Chief Wharfinger

ENDORSEMENT 2 Date: _____

Long Beach Fire Department does hereby (Approve) (Disapprove) the operation as stated in basic notification subject to the following conditions:

Signature: _____

Title: Captain, Fire Prevention

CARGO SUCH AS NAPALMS.

LONG BEACH HARBOR DANGEROUS CARGO PERMIT AND AGREEMENT:

VESSEL:_____ BERTH:_____ DATE:_____

ALL REGULATIONS TO BE ENFORCED. THIS PERMIT IS ISSUED AND ACCEPTED SUBJECT TO FOLLOWING SPECIAL PROVISIONS:

1. Towing pennants shall be made fast to bitts and ranged out bow and stern on vessel's offshore side convenient to towboats.
2. Bunkering shall be prohibited while dangerous cargoes are being loaded.
3. There shall be no burning operations for repairs or alterations on vessel.
4. Fire hoses shall be connected and ready for immediate use and sufficient lengths of hose will be laid out fore and aft to reach all hatches.
5. USCG Class III cargo shall be delivered to shipside upon completion of loading other cargo and will be transferred directly from truck to ship.
6. Notify Fire Prevention, Chief Wharfinger Office, and USCG, COTP, of any changes in dangerous cargo load list which occur after submission of first list.
7. Dangerous cargo on wharf to be kept isolated as per previously approved plan.
8. Any violation of any of the conditions of this permit shall ipso facto immediately cause this permit to become null and void.
9. It shall be the full responsibility of the Agent to inform the Master or Owner of these instructions.

NO PROVISIONS CONTAINED HEREIN ARE TO BE CONSTRUED CONTRARY TO EXISTING FEDERAL, STATE, OR MUNICIPAL REGULATIONS OR AS WAIVING PRECAUTIONS REQUIRED FOR SAFETY. THE CONDITIONS OF THIS PERMIT ACCEPTED AND WILL BE ENFORCED, TOGETHER WITH OTHER PRECAUTIONS IMPOSED BY COMPETENT AUTHORITY.

Vessel's Authorized Agent	Master
Terminal Agent	Stevedoring Company
COTP, U. S. COAST GUARD	

RECOMMENDED SUBJECT TO SATISFACTORY INSPECTION OF VESSEL.

Chief Wharfinger	Captain, Fire Prevention

Permit granted subject to all of the provisions hereinabove set forth.

T. J. THORLEY
General Manager,
Long Beach Harbor Department

By_____

FOR VESSELS FULLY LOADED WITH CLASS "A" EXPLOSIVES REQUESTING LB ANCHORAGE

LONG BEACH HARBOR

DANGEROUS CARGO PERMIT & AGREEMENT

Permit No._____

Date_____

Vessel Name_____ Nationality_____

Master's Name_____ License No._____

Berth Assigned_____ Bunkering At_____

Local Agents_____ Stevedoring Operator_____

Tug Boats Preferred for Emergency Call _____

THIS PERMIT IS ISSUED FOR THE ( ) LOADING ( ) DISCHARGING ( ) RETENTION ON BOARD ( ) TRANSPORTATION OF CLASS A, B AND C EXPLOSIVES, AND OTHER DANGEROUS CARGO.

QUANTITY AND DESCRIPTION: _____

_____

This Permit is issued and accepted subject to the following provisions:

1. Dangerous Cargo shall be packed, marked and handled in compliance with ICC specifications, and shall be transported in conformance with applicable Federal, State and Municipal regulations. Cargo handling operations and stowing of all dangerous cargo on board vessel shall comply with the provisions of the Federal Regulations entitled "EXPLOSIVES OR OTHER DANGEROUS ARTICLES ON BOARD VESSELS" as amended, promulgated by the Secretary of Commerce pursuant to Sec. 4472, amended, U. S. Revised Statutes (46 U.S.C. Para. 170) and entitled "U.S. COAST GUARD TANK VESSEL REGULATIONS", as amended promulgated pursuant to Sec. 4417a of the U. S. Revised Statutes (46 U.S.C. Para. 391a) and any other applicable Federal, State or Municipal laws, or regulations. Also 46 CFR 146.20-43 and 33 CFR 126.19, as revised to conform to Public Law 562.

2. Class B and C explosives and flammables shall move as expeditiously as practicable from docks, wharves and sheds, without stowage over night. When necessarily stowed in sheds, they shall be stowed within 10 feet of a door at the inshore end or side of shed.

3. The vessel shall stop for pilot and inspection party, in a position 1 mile south of Long Beach sea buoy. Pilot, entering and departing, shall be equipped with a two-way portable radio. He shall test equipment before leaving Pilot Station, when arriving on board and shall maintain communication with his Pilot Station.

cc: ____ AGENT
____ MASTER
____ FILE
____ U.S. COAST GUARD
____ FIRE PREVENTION
____ M.T.C.
____ U.S. ARMY

4. The vessel shall be subject to thorough inspection by Long Beach Harbor and Fire Department representatives and the Master, at the explosive anchorage or other designated place. A fire drill may be required at any time while vessel is in Long Beach Harbor. Ships carrying Class A explosives shall not enter or leave dock while visibility is less than 500 yards for prominent objects.

5. The vessel shall maintain "at sea" operation of main and auxiliary machinery while underway. (It is desirable to avoid shifting to "port" operation while approaching the port, passing through the entrance, or while in the vicinity of vessels moving or at anchor. Change of steam cycle, generator burner tips, etc., is undesirable while approaching, entering, or in the vicinity of vessels moving or at anchor.)

6. The vessel's steering engine station shall be manned while approaching, entering, or going to berth with personnel competent to shift to and from emergency steering. Communication to and from vessel's bridge and steering engine station shall be tested and established before nearing the entrance to the port.

7. Vessel's anchors shall be kept ready for instant use and an officer shall be forward with competent assistants to work ground tackle.

8. Communication from vessel's control station to forecastle shall be tested before entering, leaving or moving in the port.

9. The vessel's backing power, whistle and siren shall be tested before entering, leaving or moving in the port.

10. The vessel shall be in all respects prepared for entry, with sufficient and adequate power, personnel and facilities for emergency maneuvering.

11. (a) While the vessel is under way, the Master shall be present at the vessel's ship control station and shall maintain supervision of vessel's navigation, regardless of whether a pilot is employed.

    (b) This ship shall withhold its passage through the breakwater gap should another ocean vessel then be in actual or imminent navigation of the passage.

12. Cargo stowage plan shall be subject to examination by Long Beach Harbor and Fire Department representatives.

13. Bilges shall be emptied before docking and shall be kept free of oily waste. Vessels shall be kept free of combustible waste while in the harbor. All combustible refuse must be disposed of before the vessel enters the harbor or immediately thereafter.

14. The dock alongside entire length of ship to be kept free and entirely clear of all rubbish, trash, litter, etc.

15. Vessel shall dock bow to seaward.

16. Vessel shall maintain surveillance of all persons boarding. All unauthorized persons and those who are apparently intoxicated, irrespective of whom they may be (excluded from ship) not to be allowed to board ship at time cargo is being handled or hatches open.

17. The Master or Chief Officer and Chief Engineer or First Assistant Engineer, shall be on board at all times when Class A explosives are present or being handled. Sufficient competent personnel shall be on board at all times to take the vessel to the explosive anchorage or to sea.

18. Vessel shall at all times be ready to get underway under its own power, within_____ minutes, with its own personnel or have adequate towboat assistance standing by. A licensed Marine Engineer to be on watch at all times in the propulsion machinery compartment when a large quantity of Class A explosives is on board.

19. Wire towing pennants shall be made fast to bitts and ranged out bow and stern on vessel's offshore side convenient to towboats. Jacobs ladder to be rigged amidship in a manner that it can be immediately lowered for boarding party in event of emergency, these to be rigged before vessel docks.

20. Bunkering shall be prohibited while Class A explosives are being handled. Bunkering not to start until scuppers are plugged, deck lookout posted, intercommunication established and all other preparations made.

21. (a) No other cargo shall be worked at the same time in the same hatch in which Class A explosives are being loaded or discharged, or in any hatch in which Class A explosives are stowed, unless the explosives are in sealed steel magazines.

(b) No liquid flammables to be stowed anywhere within same hold or hatch as the explosives.

(c) Red Label and liquid flammables are to be the last cargo loaded aboard the vessel.

(d) Vessels carrying Class A explosives are not to dock until cargo workers are ready to commence operations and shall vacate the dock when cargo operations are finished.

(e) Whenever there is a suspension of cargo operations for a prolonged period, vessels carrying Class A explosives shall vacate the dock and move to anchorage in the explosives anchorage until such time as cargo work is to be resumed, if so requested by the General Manager of the Long Beach Harbor Department or the Chief of the Long Beach Fire Department.

22. Personnel employed by the ship or its agents shall be informed of explosives or other particularly dangerous cargo on board. Each change of workmen to be informed by the employers.

23. A daily dock trial with engine warm-up will be required to test vessel's readiness to move under its own power.

24. All air ports or side ports of vessel on dock side to be securely closed or screened during cargo operation until hatches are closed.

25. Boilers shall not be lit off unless licensed engineer is in attendance and special fire fighting equipment is ready to extinguish burning oil.

26. There shall be no burning operations for repairs or alteration on vessel except under surveillance of a licensed ship's officer with adequate fire extinguishing equipment immediately available and special written permission from the Long Beach Harbor and Fire Departments.

27.(a) On vessels carrying Class A explosives, smoking shall be prohibited in hatches, holds, sleeping quarters, on weather decks and every other place except the following places herein designated by the Master:

Washrooms, toilets, messrooms, engine room, galley and a designated & placarded area inside passage main deck.

(b) Permissable smoking areas shall be placarded and suitable fire resistance receptacles shall be provided for discarded tobacco and matches.

(c) No smoking to be permitted in transit sheds, highline, or cargo storage areas.

28.(a) No person shall be permitted to enter holds or cargo hatches with matches or cigarette lighter in his posession.

(b) Whenever a hold is open, the ship shall maintain a competent person therein to supress smoking and other dangerous practices equipped with a portable fire extinguisher acceptable to the Long Beach Fire Department.

(c) If watchmen are to be absent for even a short period of time, they shall be relieved by a competent person.

29. Fire fighting facilities shall be ample and in satisfactory working order. Fire hoses shall be connected and ready for immediate use and hose of sufficient length to reach into compartments containing explosives.

30.(a) Explosive compartment containing Class A explosives shall be inspected by a ship's officer at a minimum of 3-hour intervals and the inspection recorded in the ship's official log, including temperature noted. Consequential increase of temperature shall at once be reported to the Long Beach Fire Department.

(b) Smoke detector device on vessels so equipped shall be kept fully operative. If device is not equipped with an efficient audible alarm that sounds within hearing of personnel on watch, a ship's officer shall make observation of its visual indicator at a minimum of 3-hour intervals and the observations shall be recorded in the ship's official log.

(c) The vessel's ship control station (such as navigation bridge, etc.) shall be at all times unlocked and shall be accessible while explosives are aboard any vessel within the confines of Long Beach Harbor.

(d) All watchmen, when reporting for duty, shall be shown the nearest automatic fire alarm location on shore and the nearest telephone and the location of the ship's general alarm and the ship's whistle.

31. Before any heavy lifts are moved over a hatch containing Class A explosives, the gear shall be subjected to inspection by a bonded marine surveyor. Unmoused or open hooks should not be used.

32. Class A, B or C explosives shall be the last cargo to be loaded and shall have priority of discharge.

33. Operation of the vessel and cargo work shall be maintained satisfactory to Long Beach Harbor and Fire Department representatives while vessel is in port. Whenever conditions arise that may be considered hazardous, operations shall be suspended and if requested by Harbor or Fire Department representatives, vessel shall be moved. There shall be a progressive cleanup while the vessel is in port. Any imprudent operation evidenced during vessel's stay shall be suppressed by the Master. Vessels shall be kept free of combustible refuse.

34. Class A explosives shall be handled only during daylight hours.

35. Fire on board shall be signaled immediately by five prolonged blasts on the ship's whistle, siren, or fog horn and by other available means. In case of fire or other emergency, vessel shall at once vacate the dock if deemed necessary by Long Beach Harbor or Fire Department representative, or by the Master or Officer in charge. The vessel may be moved by the Harbor or Fire Department representatives and the charges incurred will be accepted and paid by the vessel.

36.(a) An alarm shall be given the Long Beach City Fire Department immediately when any fire is discovered on board. The signing and acceptance of this permit is a request by the vessel to the Chief of the Long Beach Fire Department to take over fire fighting operations in case of fire and the ship's personnel shall render assistance.

(b) Terminal shall give telephone notice of cargo handling time to the Fire Department by calling Long Beach Fire Department, HEmlock 6-8211, at least 24 hours in advance of operations.

(c) There shall be a responsible Terminal Operator designated by name:

_____

37. Any violation of any of the conditions of this permit shall ipso facto immediately cause this permit to become null and void.

38. This permit may be revoked and cancelled at any time by the General Manager, Long Beach Harbor Department or by the Chief, Long Beach Fire Department.

39. It shall be the full responsibility of the Agent to inform the Master or Owner of these instructions.

40. Compliance is not required with the provisions of paragraphs

_____

41. Before cargo work commences, there shall be a pre-work conference on board the vessel attended by all parties represented in the signing of this agreement.

42. Signers of this agreement will state at the pre-work conference their recommendations, if any, for additional precautions or their inability to conform to the prescribed precautions.

Special Provisions:_____

_____

No provisions contained herein are to be construed contrary to existing Federal, State, or Municipal regulations or as waiving precautions required for safety and by good seamanship.

The conditions of the permit accepted and will be enforced, together with other precautions imposed by competent authority, as agreed upon at the pre-work conference on board ship.

STEVEDORING CO. SIGNATURE

Permit approved for issuance, subject to: _____

_____

_____

V. M. Jones, Chief
Long Beach Fire Department

By _____

Title _____

Date _____

R. C. Hertica
Captain, U.S. Coast Guard

By _____

Title _____

Date _____

VESSEL'S AUTHORIZED AGENT

_____

MASTER

_____

TERMINAL AGENT

Recommended, subject to satisfactory inspection of the vessel.

_____

Chief Wharfinger

Permit granted subject to all of the provisions hereinabove set forth.

T. J. THORLEY
General Manager, Long Beach
Harbor Department

_____

LIQUIFIED PETROLEUM GAS VESSEL

ITY OF LOS ANGELES partment of Fire 0 North Main Street s Angeles, CA	U.S. COAST GUARD Captain of the Port 165 North Pico Ave Long Beach, CA	CITY OF LOS ANGELES Harbor Department 255 West 5th Street San Pedro, CA

SSEL: _____ FLAG: _____

CATION (Berth or Facility) _____

TE & TIME: _____

ENSED OFFICER, RANK & NAME (Print) _____ ENGLISH SPEAKING YES ___ NO ___

ENSED OFFICER, RANK & NAME (Print) _____ ENGLISH SPEAKING ___ ___

ROD TO BE TRANSFERRED:

TYPE	GRADE
_____	_____
_____	_____
_____	_____
_____	_____

LOADING _____ DISCHARGING _____

BUNKERING _____

BALLASTING CARGO TANKS _____

certify that we have conferred regarding the proposed transfer, made the lowing inspection, and are familiar with Fire Department, Harbor Depart-t, and U.S. Coast Guard Regulations applicable to the transfer of cargo, ein contained, in the Port of Los Angeles. We will observe all safety cautions. We certify that, to the best of our knowledge, the vessel and minal are, in all respects, ready to commence operations.

MINAL PERSON-IN-CHARGE

_____

(Print and Sign Name)

TANK VESSEL PERSON-IN-CHARGE

_____

(Print and Sign Name)

RDOUS CARGO INSPECTOR

_____

(Print and Sign Name)

ENDORSEMENT OF CHANGE OF WATCH OR SHIFT

ve read the Declaration of Inspection and safety checkoff sheet and I that all conditions remain satisfactory. I have tested the commun-ions systems and advised the facility/vessel personnel of the change of onnel on watch.

SIGNATURE	TITLE	DATE/TIME
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

REQUIREMENTS FOR LIQUIFIED PETROLEUM GAS TRANSFER VESSEL AND FACILITY

Tank Vessel Inspector will inspect ship prior to transfer.

Additional inspections will be made by concerned agencies as needed.

1. The Person-in-Charge shall speak fluent English. If not possible, a crewman who speaks English shall be stationed near the shutdown button or valve and shall maintain continuous radio communication with Terminal and Vessel Persons-in-Charge.

2. Vessel has red flag or light. Warning signs on wharf, gangway, radio room, and off-shore side of vessel in place.

3. Mooring lines are strong enough to hold and of sufficient length to adjust to all conditions.

4. Transfer system aligned and ready to transfer.

5. Unnecessary or unused components of the transfer system shall be blanked off with gaskets and at least 4 bolts, or an approved blanking device.

6. The cargo transfer system shall be connected to fixed piping system.

7. Loading arm must be long enough to allow ship movement and supported so as to prevent strain on coupling.

8. Suitable material must be used in joints and coupling to make a tight seal.

9. Loading arm connections must be made with the proper size bolts in every hole.

10. The Persons-in-Charge shall remain in the immediate vicinity of the transfer operation and be immediately available to the transfer personnel to supervise connections, disconnections, and emergency shutdowns.

11. No fire or open flame will be permitted. All repair work on vessel or wharf which can serve as an ignition source must have prior approval of LAFD, USCG and LAHD.

12. Power or manual spark producing devices shall not be operated on weather decks, in pumprooms, in cargo or fuel tanks, or compartments which may accumulate vapors.

3. Boiler and galley fires will not be a fire hazard during transfer operations.

4. All sources of ignition shall be removed, eliminated or secured within 200 feet of vessel.

5. The vessel and shore facility will have adequate lighting to safely conduct the transfer operation.

6. Smoking shall be permitted only in approved designated areas. No smoking signs shall be posted elsewhere.

7. A pre-transfer conference has been held by the Persons-in-Charge covering:
   products; discharge sequence and rates; names of persons involved; transfer system details and critical stages; other applicable rules; emergency, discharge containment and reporting, and shutdown procedures; and shift change procedures.

8. Sufficient personnel are present for the transfer: For the ship, a licensed Deck Officer and two Assistants. For the Terminal, the Person-in-Charge and two Assistant.

9. Sufficient crewmen to get the vessel underway in an emergency shall remain aboard the vessel at all times.

10. The Terminal and Vessel Persons-in-Charge shall indicate to each other that they are ready to transfer prior to starting the transfer.

11. Intoxicated, disorderly, and unauthorized persons shall not be permitted on the terminal or aboard the vessel. Exception - crewmen who are escorted from the gate to the vessel by ship's personnel.

12. All cargo and personnel compartment openings will be closed during transfer except when required to be temporarily opened.

13. Stores and supplies shall not be loaded during any transfer or tank cleaning operation unless approved by Hazardous Cargo Inspector.

14. Sufficient, serviceable fire hose equipped with suitable nozzles, shall be attached to fire main and ready for instant use. There shall be adequate water pressure to supply at least 50 lbs. pressure at each working fire hose nozzle.

15. Emergency towing wires shall be rigged outboard fore and aft and maintained within 2 meters of water surface.

16. Transfer system connections shall be continually checked for leaks and pressure gauges checked to insure the maximum working pressure is not exceeded.

If a spill occurs, it shall be reported immediately to the Persons-in-Charge.

Three security guards shall be maintained at the terminal while the vessel is moored at the wharf.

Maintenance stores and supplies shall be stowed in a remote clean shed only in quantities necessary for current operations. The facility shall be free of rubbish, debris, and waste materials except in approved location or containers. Soiled rags shall be kept in covered metal containers which shall be removed at the end of each working day.

Electrical equipment shall be approved for the Hazardous Area it is used in. Only flashlights approved for use in Class 1, Group D Hazardous Areas shall be used on the Terminal and aboard vessel.

If Electrical Bonding is used, it shall be activated by an approved switch prior to cargo hose connection and deactivated after cargo hose disconnection and spillage removal. The bonding system shall have a means of indicating continuity of the bond.

The Persons-in-Charge shall have cargo information cards for each cargo being handled immediately available.

Engines shall be kept ready and vessel trimmed in order to depart within 30 minutes in an emergency.

Vent piping shall be sound and free of leaks.

All electrical installations in the pumproom shall be either explosion-proof and/or intrinsically safe. Installations on the weather deck and in spaces bounding cargo tanks shall be properly maintained and not pose any hazards. (Example: globes removed from light fixtures.) Wiring shall be in good condition in these areas.

Electric cables to portable equipment shall be disconnected unless certified for use in hazardous areas. There shall be no exposed electrical wires aboard the ship.

All communication equipment involved in the transfer operation shall be tested and properly working. Walkie-Talkies shall be tested hourly and immediately prior to transfer.

Cargo related decks of the vessel shall remain free of dirty rags, rubbish, debris and loose tools. Dunnage shall be placed under any drums of metal deck cargo to eliminate danger or sparks.

All cargo transfer and tank cleaning operations shall be immediately shutdown if any of the following occurs:

a. Severe electrical storm.

b. A fire occurs on the vessel, terinal or in the vicinity.

c. Sufficient competent personnel are not present during cargo handling or a language barrier develops between vessel and facility.

d. If a break occurs in transfer system, cargo is leaking at joints or connections at a rate exceeding the capacity of the containment system, or if a spill occurs.

e. If a serious vapor condition develops aboard or around the vessel or wharf due to an abnormal dissipation.

f. If any emergency arises which may result in a spill or affect the safety of the vessel or terminal.

10. Cargo transferring shall begin slowly. Connection shall be inspected for leaks prior to transferring at operating pressure, and during transfer operations.

11. All roadways to the wharf shall be properly maintained and unobstructed.

12. Vehicles shall be parked heading towards gate, unlocked and with keys in ignition unless parked in a designated parking area, 100 feet from vessel. Motor vehicles shall not be operated on a Marine Oil Terminal within 100 feet of a tank vessel during transfer operations, without prior approval of the Hazardous Cargo Inspector. Only electrically operated automotive equipment approved for use in hazardous areas shall be operated within 100 feet of transfer area.

3. There shall be at least five (5) 20 lbs. dry chemical portable fire extinguishers on deck. Two (2) shall be located at each side of the manifold and one at the gangway or accommodation ladder.

1. If vessel design permits, all air intakes which may take in vapors or are within 35 meters of a cargo tank opening or venting point shall be closed. Compartment air intake vents shall be trimmed away from the cargo area to prevent intake of vapor. Window type air conditioning units facing cargo area shall be disconnected.

Main radio transmitting equipment shall be off during transfer.

5. Additional Fire Protection - In lieu of foam protection, this Department requests the following:

a. Two (2) monitors capable of delivering 500 G.P.M. each.

b. One hundred fifty (150) lbs. dry chemical extinguishing agent (portable).

gulations herein contained reflect laws contained in the Code of deral Regulations, Los Angeles Fire Code, and the Port of Los geles Tariff.

APPENDIX C
TERMINAL SAFETY PROVISIONS
SUPPLEMENTAL MATERIALS

CORBIN & FLEET STREETS P. O. BOX 1050 ELIZABETH, NEW JERSEY 07207 — PHONE (201) 289-6000 (N. J.) (212) 964-9200 (N. Y.)

SEA-LAND
SERVICE, INC.

May 25, 2979

Mr. W. A. Hartman
Safety Officer
The Port of Long Beach
P. O. Box 570
Long Beach, California 90801

Dear Mr. Hartman:

Enclosed are copies of several Sea-Land procedures dealing with our handling of hazardous materials. I hope they will be of use to you in developing the risk management safety report.

Sincerely,

SEA-LAND SERVICE, INC.

M. T. Bohlman, Director
Regulatory Compliance

MTB/tam
Attachments

SEA-LAND SERVICE, INC.

APPROVAL/TRANSMITTAL SHEET

☐ POLICY ☒ PROCEDURE ☐ TECHNICAL MANUAL

☐ NEW ☒ CHANGE

REF. NO. 07-07-001
DATE ISSUED 10 July 1978
REVISION NO. Original
PAGES ATTACHED 17

SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND

NEED OR PROBLEM:

Exhibits B&F must be updated to reflect recent regulatory requirements.

Exhibit H added to reflect proper stowing of portable tanks containing flammable liquids with a flash point below 100 degrees F.

Prohibited, Restricted and Special Handling Commodities sections have been revised to provide more specific definitions.

SUMMARY OF ATTACHED POLICY/PROCEDURE/TECHNICAL MANUAL:

The affected exhibits and commodity sections have been revised.

SUBMITTED BY: [signature] DATE: 2/27/79

APPROVED BY: R. Henning

OPERATING COMMITTEE (BY): N/A DATE:

CHIEF EXECUTIVE OFFICER: N/A DATE:

SL 2022 6/77

SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND

I. PROCEDURAL OVERVIEW

Guidelines are set forth that allow Sea-Land to handle the maximum amount of approved types of hazardous materials without derogating safety.

II. ORGANIZATIONAL UNITS AFFECTED

- All Sea-Land Terminal, Port and Country Managers.
- All Division LP&C/SCS Managers
- All Sea Operations General Managers, Regional Managers and Managers.
- All Booking Personnel.
- All Sales Personnel.
- All Masters of Sea-Land Vessels.
- Members of the Hazardous Commodities Review Committee.

III. DEFINITION OF TERMS

- Prohibited Cargo - hazardous materials prohibited from carriage on Sea-Land vessels in any amount and under any circumstances.
- Restricted Cargo - hazardous materials that may move on a Sea-Land vessel providing the individual move is approved in advance by the Hazardous Commodities Review Committee.
- Special Handling Cargo - hazardous materials that can be moved on a Sea-Land vessel providing special standard procedures, as set forth in Exhibits A through H of this procedure, are followed.
- Hazardous Cargo - that cargo that is regulated as a hazardous material and is not specifically listed within this procedure as prohibited, restricted, or cargo which requires special handling.

IV. OTHER RELATED POLICIES OR PROCEDURES

Policy - 07-07 - Carriage of Hazardous Materials.

V. RESPONSIBLE STAFF DEPARTMENT

Land Operations Services Department, Elizabeth, N.J. (Hazardous Commodities Review Committee).

SL 2021 6/77

VI. PROCEDURE

A. PROHIBITED CARGO - Hazardous materials that are classified as either:

Arsine
Boron Trichloride
Chlorine Trifluoride
Cryogenic Liquids
Cyanogen Chloride
Explosives, Class A (except water gel explosives and compatible booster explosives)
Hydrogen Cyanide, Anhydrous
Hydrogen Fluoride, Anhydrous
Nitric Oxide
Nitric Oxide & Nitrogen Tetroxide Mixtures
Nitrogen Dioxide
Organic Peroxides (requiring refrigeration for stability)
Phosgene
Poisons, Class A
Pyrophoric Liquids (in packages over 110 gallons in size)

under the DOT System are prohibited from carriage by Sea-Land.

B. RESTRICTED CARGO - The following hazardous materials:

Ammonia, Anhydrous
Boron Trifluoride
Carbon Monoxide
Chlorine
Coal Gas
Diborane
Explosives, Class B
Fluorine
Hydrogen Bromide, Anhydrous
Hydrogen Chloride, Anhydrous
Hydrogen Sulphide
Methyl Bromide
Nitrosyl Chloride
Oil Gas
Pyrophoric liquids (in packages of 110 gallons capacity or less)
Silicon Tetrafluoride
Sodium Cyanide
Sulfur Dioxide
Trimethylamine, Anhydrous
Water Gas
Water gel explosives and compatible booster explosives

*Page Revised 1/29/79

SL 2021 6/77

VI. PROCEDURE (cont'd)

must be specifically approved for transport by the Hazardous Commodities Review Committee (HCRC) and the affected Division(s) prior to each move.

At least two weeks prior to the proposed move, the chairman of the HCRC must be furnished with at least the following information:

1. The proper shipping name of the material
2. The DOT and IMCO class of the material
3. The U.N. number of the material
4. The quantity of material
5. The packaging that will be used (DOT specification number)
6. The name and address of the shipper and consignee
7. The origin and destination and all intermediate ports of call

Within one week of receipt of the above listed information, the HCRC will, through its chairman, advise the affected Divisions whether or not the material is approved for carriage and if approved, will set forth those specific instructions that must be adhered to for carriage. Within one week of receipt of HCRC approval for carriage the affected Division(s) will advise the shipper whether or not the material is approved for carriage and, if approved, the specific instructions that must be adhered to for carriage. (These instructions will, as a minimum, reiterate the HCRC's instructions.) If disapproved by the HCRC for carriage the chairman of the HCRC will also notify the shipper through the affected Division.

C. SPECIAL HANDLING CARGO - The following hazardous materials:

-- Ammonium Nitrate
-- Ammunition
-- Cigarette Lighters (charged with fuel)
-- Explosives, Class C
-- Motor-fuel Antiknock Compound
-- Motor Vehicles
-- Radioactive Materials
-- Refrigerated Hazardous Materials
-- Tetraethyl Lead
-- Yellow Phosphorous

SL 2021 6/77

*Page Revised 1/29/79

VI. PROCEDURE (cont'd)

can only be carried as set forth in Exhibits A through H of this procedure.

D. OTHER HAZARDOUS MATERIALS - All other hazardous materials may be carried provided they are authorized for carriage aboard cargo vessels by DOT regulation 49 CFR 172.101, are in DOT authorized packages and are carried in full accordance with the regulations (49 CFR 100-199 and the IMCO Code).

VII. EXHIBITS

No.	Description
A	Ammonium Nitrate and Nitro Carbo Nitrate Shipments Procedure
B	Cigarette Lighters Procedure
C	Class C Explosives and Ammunition Procedure
D	Hazardous Materials in Reefers Procedure
E	Motor-fuel Antiknock Compound, Tetra-ethyl Lead and Yellow Phosphorous Procedure
F	Motor Vehicles Procedure
G	Radioactive Materials Shipments Procedure
H	Flammable Liquids in Portable Tanks Procedure

*Page Revised 1/29/79

SL 2021 6/77

SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND

AMMONIUM NITRATE AND NITRO CARBO NITRATE SHIPMENTS

Ammonium Nitrate and Nitro Carbo Nitrate Shipments are subject to many locally imposed restrictions and special handling provisions. Prior to booking any loads of Ammonium Nitrate or Nitro Carbo Nitrate these restrictions for the origin, destination, and each intermediate port must be ascertained and the decision made by local management that the movement can be economically and safely made.

The Regulations in 49 CFR 176.410 and 176.415 must be complied with.

SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND

CIGARETTE LIGHTER PROCEDURE

Cigarette lighters filled with flammable gas or liquid and fitted with an ignition device can only be carried:

1) If the design of the lighter and its packaging has been approved by the Transport System Center (T.S.C.) of the U.S. Department of Transportation

2) If a copy of the Transport System Center approval accompanies the shipment.

3) For lighters charged with flammable gas only, if each lighter contains no more than 2.3 fluid ounces of liquefied gas.

If the lighters are carried in closed containers, a warning sign must be affixed to the access doors. "WARNING - MAY CONTAIN EXPLOSIVE MIXTURES WITH AIR - KEEP IGNITION SOURCES AWAY WHEN OPENING." The warning must be on a contrasting background and must be readily legible from a distance of 25 feet.

The container (closed or vented) must be stowed on deck.

Cigarette lighters containing 50 ml. or less of flammable liquid fuel in each lighter, 1 liter or less of fuel in each package and no more than 10 liters of fuel in the total shipment (from one consignor to one consignee) and cigarette lighters containing 100 grams or less of flammable gas fuel in each lighter and packed in packages with a maximum gross weight of 10 kilograms, that are not being shipped into, out of, or over the United States, may be handled as non-regulated material, provided they are stowed on deck.

*Page Revised October 16, 1978

CLASS C EXPLOSIVES AND AMMUNITION PROCEDURE

Class C explosives and ammunition may be carried on-board Sea-Land vessels provided:

1. The following information is provided to the origin terminal, destination terminal, all intermediate ports of call, Director Loss Prevention, Corporate Terminal Operations, and to the Director Safety Engineering, Corporate IC&S at least one week prior to the loading of the vessel with the freight and none of these individuals disapproves the shipment:

   a. The name and address of the shipper (not the forwarder)
   b. The name and address of the consignee
   c. The end use of the ammunition or explosives
   d. The caliber and type of the ammunition
   e. The number of rounds of each caliber
   f. The gross weight of the cargo
   g. The net weight of explosive
   h. The type of packaging
   i. The number of packages
   j. The port of destination

2. The following information is provided prior to the vessel reaching its First Port of Call to the Director of Loss Prevention, Corporate Terminal Operations, and the Terminal and Marine Managers of each port through which the load is to pass:

   a. The container number
   b. The Booking number

3. A copy of the commercial invoice and packing list, from the shipper, is mailed to the destination port (attn: Terminal Marine Manager) in time to arrive before the vessel.

HAZARDOUS MATERIALS IN REFRIGERATED CONTAINERS

Organic peroxides requiring refrigeration for stabilization (see prohibited cargo list) and flammable liquids with a flash point below 0 degrees F are prohibited from carriage in an operating refrigerated container on board Sea-Land vessels.

The following categories of hazardous materials can be carried on board Sea-Land vessels in refrigerated containers only with the approval of Director, Perishable Commodities Service, Corporate SCS:*

a. Hazardous materials in packages fitted with vents or relief devices.

b. Hazardous materials with an oral rate LD_{50} value of 3000 mg/kg or less.

c. Hazardous materials with a flash point below 73 degrees F provided the set temperature of the reefer is at least 5 degrees below the product's flash point.

d. Organic peroxides (other than those prohibited) with a SADT of 55 degrees F or higher.

In all cases, hazardous materials transported in refrigerated containers must be in packages that will maintain their integrity (i.e., leaktight) at an ambient temperature of 130 degrees F. For packages containing liquids the ullage space must not disappear at temperatures below 130 degrees F.

* In the absence of the Director, PCS approvals may be granted by the Director, Regulatory Compliance; Manager, Regulatory Compliance; or Manager, Chemical Product R&D (SCS).

MOTOR-FUEL ANTIKNOCK COMPOUND, TETRA-ETHYL LEAD AND YELLOW PHOSPHOROUS

Tetra-ethyl lead is prohibited from carriage in packages over 110 gallons capacity (i.e. bulk).

Motor-fuel antiknock compound and yellow phosphorous (under water) may be carried in bulk in portable tanks complying with the regulations in 49 CFR if emergency response information is provided by the shipper to the origin terminal Sea Operations Vessel Manager (Marine Manager if no Sea Operations Vessel Manager exists at that facility) for his presentation to the Master of the vessel prior to loading the portable tank aboard the vessel and the affected Divisions approve (based on the absence of local restrictions that would make the shipment economically or legally unacceptable) the move.

Drums of tetra-ethyl lead, motor-fuel antiknock compound and yellow phosphorous (under water), including empty drums previously containing these materials, can only be carried in containers bearing Sea-Land serial numbers above 42652, (excluding those in the 49000 series), and if:

a. The drums are loaded as shown in pg. 2, 3 and 4 of this exhibit.

b. The load is checked for proper blocking and bracing at the origin terminal by a qualified Sea-Land employee and cleared for carriage on our vessels or movement by rail, as appropriate.

c. The load is checked for unacceptable blocking and bracing and leakage after the rail portion of the move has taken place at the railhead prior to movement to Sea-Land's facility.

Do not allow any leaking tetra-ethyl lead or motor-fuel antiknock compound to contact skin or clothing as death could result. Immediately report any leakage discovered to the shipper and to Director, Regulatory Compliance, Elizabeth and Director, Safety Engineering, Menlo Park.

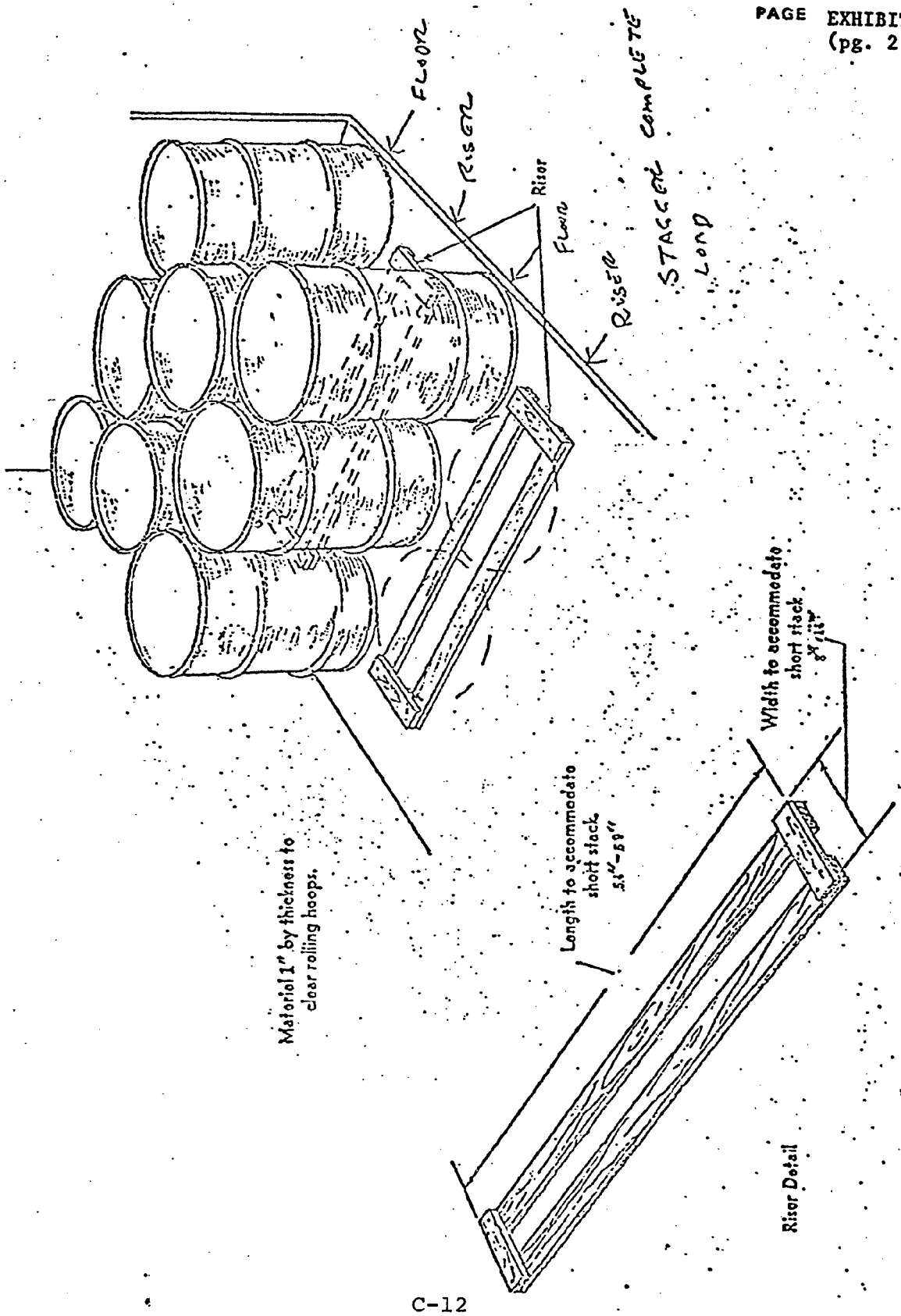
REF. NO. 07-07-001

DATE ISSUED 10 July 1978

REVISION NO. Original

PAGE EXHIBIT E (pg. 2 of 4)

SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND



— TIGHT LOADING OF DRUMS WITH ROLLING HOOPS.

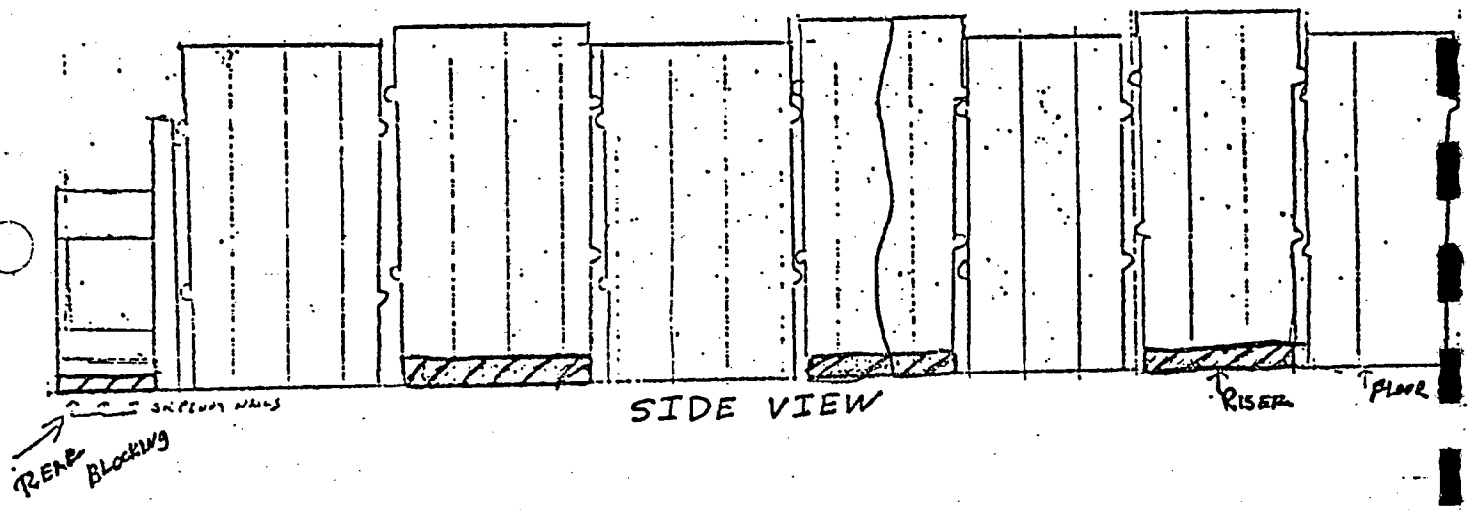
REF. NO. 07-07-001

DATE ISSUED 10 July 1978

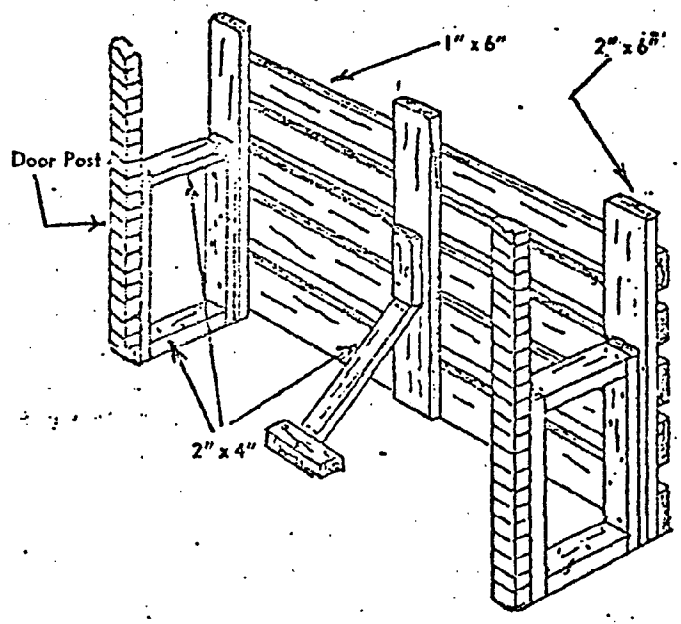
SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND

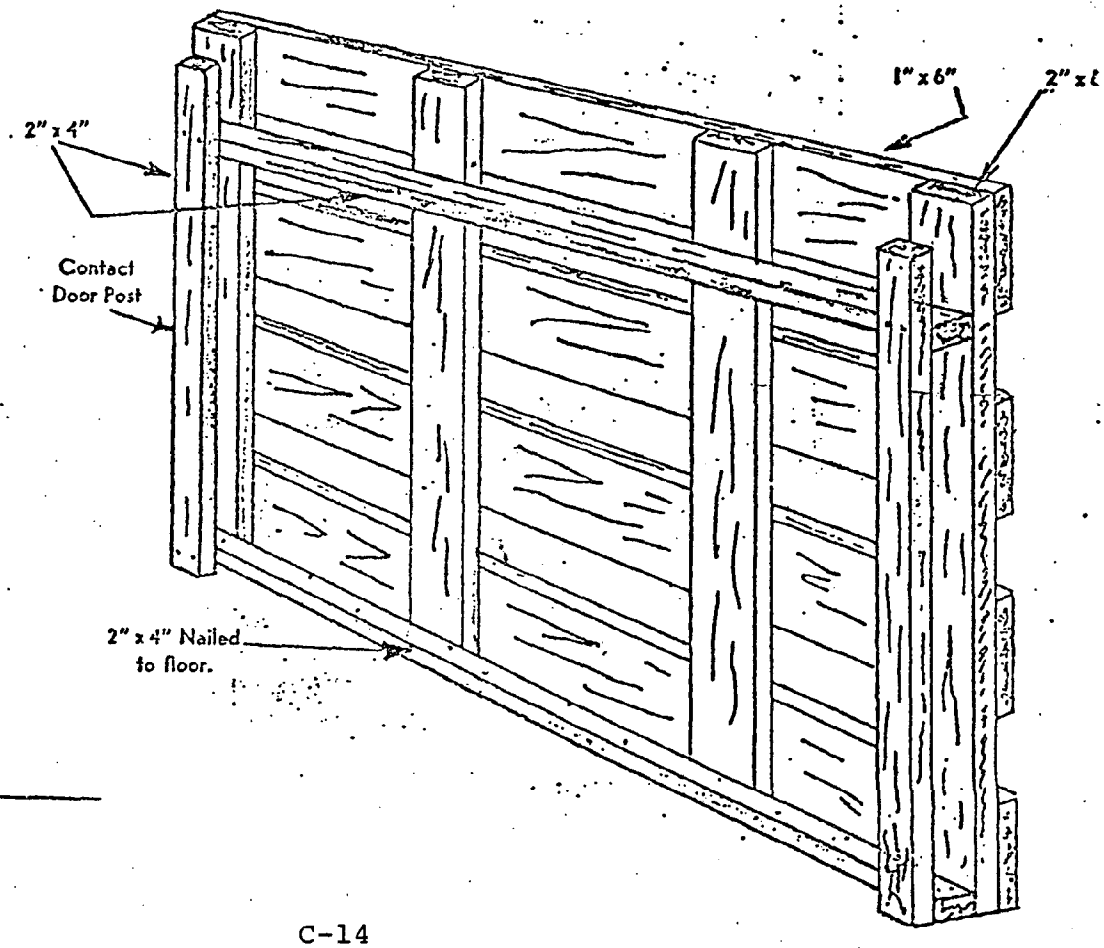
REVISION NO. Original

PAGE EXHIBIT E (pg. 3 of 4)



SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND





SATISFACTORY REAR GATES

MOTOR VEHICLES PROCEDURE

A Motor vehicle with the battery disconnected and the battery cables tied back, the gas tank completely drained and the engine run until all fuel within it is consumed must be shipped as a non-regulated material.

Motor vehicles not meeting all of the above criteria are regulated as ORM-C's. They may have a maximum of 1/4 of a tank of gas. They may be stowed in a closed container with a warning affixed to the access doors. "WARNING - MAY CONTAIN EXPLOSIVE MIXTURES WITH AIR - KEEP IGNITION SOURCES AWAY WHEN OPENING."

Stowage may be on deck or below deck.

*Page Revised October 16, 1978

RADIOACTIVE MATERIALS SHIPMENT PROCEDURE

Radioactive Materials are prohibited on board any Sea-Land vessel calling at any French, Italian, or Far East port.

On vessels not calling at these ports, radioactive materials may be carried provided the following occurs:

1. At least ten (10) days prior to the desired date of shipment a telex is sent to Director, Safety Engineering and Director of Insurance, Corporate IC&S and Manager Security, Corporate Terminal Operations giving:

   a. The technical name of commodity
   b. The commodities ultimate use
   c. The name of the shipper
   d. The name of the consignee
   e. The origin of the shipment
   f. The destination of the shipment

2. Approval for the movement is received from Director, Safety Engineering and Director, Insurance.

3. Evidence of Nuclear Liability Insurance is provided (if the Director of Insurance requires the shipment to be insured). The shipper, consignee, or other party who has contractual responsibility must provide evidence of nuclear liability insurance with the following characteristics:

   a. $10,000,000 (U.S. dollars) minimum amount of insurance.
   b. Name of insured must be Sea-Land Service and/or all subsidiary and affiliated companies and their owned and chartered vessels.
   c. Policy must cover entire transit (inland origin to inland destination).
   d. Policy must provide for cross-liability.
   e. Policy must provide coverage for seaman claims.

4. A copy of the insurance policy with all endorsements (in English) is forwarded to Director of Insurance, Corporate IC&S.

5. A completed Radioactive Shipment Data Sheet, form SL 1904 (see page 3 of Exhibit H) is returned to the origin terminal prior to movement of the freight. (A telex containing the information may be used.)

6. All information on the completed data sheet is transmitted, prior to movement of the freight, to:

a. Origin terminal Terminal Manager and Terminal Marine Manager
b. Destination terminal Terminal Manager and Terminal Marine Manager
c. Every Terminal Manager and Terminal Marine Manager whose terminal the load is to transit or be relayed over
d. The Director of Insurance, Corporate IC&S
e. The Director of Safety Engineering, Corporate IC&S

7. Any applicable DOT exemption, (IAEA) or foreign special permits are distributed as in 5 above prior to movement of the freight.

8. A copy of any applicable DOT exemptions, IAEA or foreign special permits is attached to the Dangerous Cargo Manifest and the shipment is properly manifested by the Terminal Marine Manager at the origin terminal.

9. The U.S. Coast Guard Captain of the Port is notified at least 24 hours in advance of the arrival of the freight in his port, of the details of the move and estimates of time of arrival and departure by the Terminal Marine Manager. This requirement also applies to intermediate U.S. ports of call.

10. Upon receipt of the load the Terminal Manager at the origin terminal arranges the following:

a. A check of the blocking and bracing of the load within the container to ensure its adequacy for marine transport.
b. A check to ensure that the container is properly placarded (and marked with the DOT exemption number if appropriate).
c. The spotting of the container in a location where it can be readily observed.
d. Periodic checking for security
e. Application of cable seals or a quality padlock (key possession limited to Terminal Manager or LP&C Manager) if the container is a closed container.

11. A telex (departure message) is sent by the Terminal Manager of the origin and each intermediate terminal to all concerned terminals (6a, b, and c above) confirming the presence of the radioactive material on the vessel.

12. At least 48 hours prior to the vessel's arrival, notification of the ETA of the vessel is sent by the Terminal Marine Manager of each intermediate, relay and destination terminal to the appropriate national or local authorities.

SEA-LAND SERVICE, INC.

RADIOACTIVE SHIPMENT DATA SHEET

(TO BE FILLED IN BY SHIPPER OR SHIPPER'S REPRESENTATIVE)

IMPORTANT: COMPLETE ALL QUESTIONS AND FORWARD ORIGINAL TO LOCAL SEA-LAND REPRESENTATIVE BEFORE SHIPMENT IS MADE.

SHIPPER:

CONSIGNEE:

1. FULL TECHNICAL NAME
2. INTENDED USE ☐ INDUSTRIAL ☐ MEDICAL ☐ AGRICULTURAL ☐ COMMERCIAL ☐ SCIENTIFIC ☐ OTHER
3. NUMBER AND TYPE OF PACKAGES
4. GROSS WEIGHT
5. NET WEIGHT
6. SEA-LAND TRAILER NUMBER *(if known)*
7. DOT SPECIAL PERMIT OR IAEA CERTIFICATE NUMBER
8. FOREIGN PERMIT NUMBER AND COUNTRY OF ISSUE
9. NAME OF RADIOISOTOPE
10. WEIGHT OF RADIOISOTOPE
11. FORM OF RADIOISOTOPE
12. PERCENT ENRICHMENT
13. ACTIVITY IN CURIES
14. UN/IMCO NUMBER
15. LABEL
16. TRANSPORT GROUP
17. TRANSPORT INDEX NO.
18. FISSILE CLASS
19. RADIATION AT ONE METER
20. RADIATION AT SURFACE
21. IS RADIOACTIVE MATERIAL IN ITS FINISHED FORM ☐ YES ☐ NO *(NOTE: If no, give details on nature of additional processing below.)*

NOTE: THE ABOVE DATA WILL BE USED TO OBTAIN ENTRY PERMITS FROM FOREIGN CONTROLLING AGENCIES. THEREFORE THE SHIPPER IS RESPONSIBLE FOR THE ACCURACY OF THE INFORMATION CONTAINED HEREIN.

COMPLETED BY: COMPANY NAME _____ SHIPPER OR REPRESENTATIVE _____ SIGNATURE _____ DATE _____

SL 1561 5/75

SUBJECT: CARRIAGE OF HAZARDOUS MATERIALS BY SEA-LAND

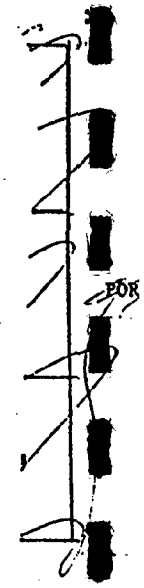
Portable tanks containing liquids with a flash point below 100 degrees F cc should not be stowed:

a. Adjacent to the reefer unit end of an operating reefer, on either side of an operating reefer, directly above the operating reefer, or in any location above these positions (see diagramatic sketch ~~in Exhibit H of procedure 07-07-001~~ below).

b. In proximity to a reefer jack unless that jack is shielded so as to preclude contact between any live electrical parts, including the plug, and any liquid that may escape from the tank.

YES	YES	YES	YES	YES
YES	NO	NO REEFER UNIT	NO	YES
YES	NO	NO	NO	YES

TOP VIEW (looking down)



REVISED POLICY

Note these same restrictions apply to all tiers above the illustrated tier

SEA-LAND SERVICE, INC.

APPROVAL/TRANSMITTAL SHEET

☐ POLICY ☒ PROCEDURE ☐ TECHNICAL MANUAL

☒ NEW ☐ CHANGE

REF. NO. 07-99-006
DATE ISSUED 20 April 1978
REVISION NO. 001
PAGES ATTACHED 1 - 2

SUBJECT: HAZARDOUS MATERIALS PLACARDS

NEED OR PROBLEM:

The responsibilities of the Sea Operations Manager must be expanded to include distribution of Form SL 295 to the originating terminal for corrective action.

SUMMARY OF ATTACHED POLICY/PROCEDURE/TECHNICAL MANUAL:

Section VI. A., 2. has been revised to include this requirement as well as the use of form SL 2084, Hazardous Materials Exception Report.

SUBMITTED BY: M. Bohlman, Dir. Reg. Comp. DATE: 4-7-1978

APPROVED BY:

OPERATING COMMITTEE (BY): N/A DATE:

CHIEF EXECUTIVE OFFICER: N/A DATE:

SL 2022 6/77

SUBJECT: HAZARDOUS MATERIALS PLACARDS

I. PROCEDURAL OVERVIEW

Containers shall be inspected for proper placards when entering the Sea-Land facility, when aboard ship and when leaving the terminal.

II. ORGANIZATIONAL UNITS AFFECTED

. All Sea-Land Port and Terminal Managers
. Members of the Hazardous Commodities Review Committee
. Masters of all Sea-Land Vessels

III. DEFINITION OF TERMS

Placard - a Department of Transportation approved warning sign which indicates that hazardous materials are in the containers. Authorized placards are described in DOT regulations 49 CFR 172.519 through 172.558 and 172 Appendix A and B. These placards meet the IMCO code requirements for oversize labels.

IV. OTHER RELATED POLICIES OR PROCEDURES

None.

V. RESPONSIBLE STAFF DEPARTMENT

Land Operations Services, Elizabeth, N.J.

VI. PROCEDURE

A. Inspection of containers

1. Entering or leaving a Sea-Land facility.

The Terminal Manager shall establish an inspection program which ensures that:

a. All empty containers or those containing non-regulated material have the hazardous materials placards removed.

SL 2021 6/77

VI. PROCEDURE (cont'd)

b. All containers which are carrying hazardous materials have properly placed placards, as detailed below, that properly describe the material within the container. The container must also agree with the accompanying documentation.

2. Stowed on deck of a vessel between ports

The master of the vessel shall establish an inspection program which ensures that containers listed on the Dangerous Cargo Manifest have the correct placard and that all other containers are not placarded. Where possible, improper placards and marking will be removed and proper placards affixed. Those containers which could not be checked, or those that could not be corrected and those that were corrected should be listed on a Hazardous Materials Exception Report (SL 2084), in the appropriate section.

B. Corrective Action

Immediately upon docking at the destination terminal the Master of the vessel shall submit a properly completed SL 2084 to the Sea Operations Manager. (In those ports without a Sea Operations Manager, this report shall be submitted to the Marine Manager.) The Sea Operations Manager, or Marine Manager, as appropriate, will distribute the form to the destination and origin Terminal Marine Manager. The destination Terminal Marine Manager will ensure that all containers that could not be checked on board the vessel are checked and that all improper placarding is corrected prior to the containers leaving his facility.

C. Placement of Placard

Containers loaded with hazardous materials (in any quantity) shall bear the proper placard; one on each side of the container. Each placard shall be applied as shown in Exhibit A. The placard shall be firmly affixed, clean enough to be legible, right side up and with the wording horizontal.

VII. EXHIBITS

No.	Subject
A	Location of Hazardous Materials Placard
B	Hazardous Materials Exception Report (SL 2084)

SL 2021 6/77

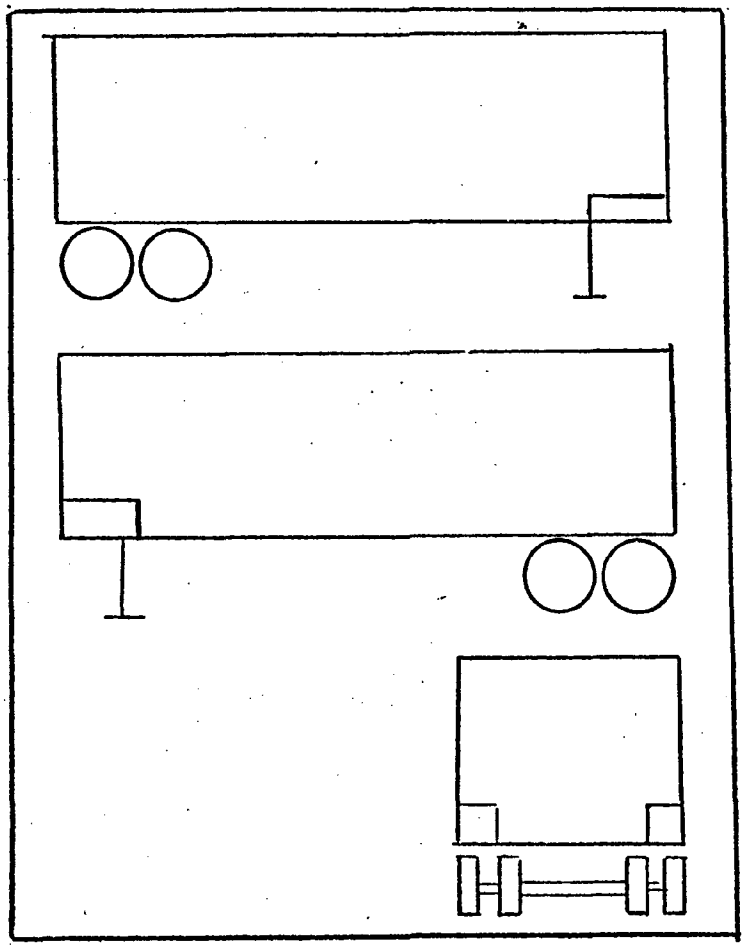
SUBJECT: HAZARDOUS MATERIALS PLACARDS

LOCATION OF HAZARDOUS MATERIALS PLACARDS

1. PLACARDS BEING APPLIED TO THE SIDES OF SEA-LAND CONTAINERS SHALL BE RESTRICTED TO A 2' X 4' RECTANGLE ADJACENT TO THE FRONT OF THE CONTAINER.

2. PLACARDS BEING APPLIED TO THE FRONT OR REAR OF SEA-LAND CONTAINERS SHALL BE RESTRICTED TO 2' X 2' SQUARES IN EACH BOTTOM CORNER.

3. PLACARDS BEING APPLIED TO TANK CONTAINERS SHALL BE INSERTED IN THE INSTALLED PLACARD HOLDERS.



RIGHT SIDE

LEFT SIDE

FRONT/REAR

SEA-LAND SERVICE, INC.

HAZARDOUS MATERIALS EXCEPTION REPORT

VESSEL _____

VOYAGE _____

DATE _____

PORT OF LOADING _____

Instructions: Form to be completed for each leg of a voyage where exceptions to hazardous materials stowage or placarding are noted. Careful comparison with current Dangerous Cargo Manifest should be made during first routine rounds after departure and exceptions noted. Completed form to be delivered to Sea Operations Manager (Marine Manager in ports without Sea Operations Department) as soon as possible after docking. S/L Leaking Tank Report and DOT Hazardous Materials Incident Report must also be completed when applicable. Incidents of a serious or emergency nature should be communicated by SSB or CW at earliest opportunity with this form submitted as a follow-up.

PART ONE: Imp.Placarded-Corrected by Vessel

DISCH.PORT	CONT.NO./POS		NATURE/EXCEPTION

PART TWO: Improperly Placarded-Not Corrected

DISCH.PORT	CONT.NO./POS		NATURE/EXCEPTION

PART THREE: Inaccessible for Checking Placard

DISCH.PORT	CONT.NO/POS		CONT.NO/POS	

PART FOUR: Stowage/Segregation Violations

REMARKS (Incidents, Comments, etc.) _____

DIST: Home Port Sea Operations Manager
Loading Port Terminal Manager
Mgr.Regulatory Compliance Control,Eliz.

Destination Terminal Manager: _____
" " " _____
" " " _____

SL-2084 4/78

SEA-LAND SERVICE, INC.

PROCEDURE TRANSMITTAL SHEET

DATE: 18 September 1978

TO: ALL PROCEDURE MANUAL HOLDERS

FROM: ELIZABETH - C. A. Rodina, Information Systems

SUBJECT: INSPECTION OF TANK EQUIPMENT

I. CONCURRENCE	II. INFORMATION COPIES TO
M. Bohlman M. Bohlman 8-7-78 Date Dir. of Bulk Comm. Serv. Date Date Date Date Date Date Date Date Date	J.J. Gallagher, Elizabeth G. Cople, Hong Kong T. Yost, Iselin S. Palen, Rotterdam J. Vanna, Oakland C. Raymond, Ft. Lauderdale N. Porter, Anchorage J. Hinchcliffe, Seattle R. Ingram, Rio De Janeiro

SUMMARY

All tank equipment must be inspected when entering a Sea-Land facility, whether empty, loaded or in relay. It is the responsibility of the origin terminal to only load tanks aboard a vessel which have been determined to be fit for service and for conditions which will be encountered at sea without leaking.

APPROVAL/TRANSMITTAL SHEET

☐ POLICY ☒ PROCEDURE ☐ TECHNICAL MANUAL

☐ NEW ☒ CHANGE

REF. NO. 07-99-015
DATE ISSUED 16 Jan. 1979
REVISION NO. Original
PAGES ATTACHED 2

SUBJECT: INSPECTION OF TANK EQUIPMENT

NEED OR PROBLEM:

Redesign of the Tank Container Air Test Apparatus.

SUMMARY OF ATTACHED POLICY/PROCEDURE/TECHNICAL MANUAL:

Exhibit B has been revised to reflect the new design and dimensions of the Tank Container Air Test Apparatus.

SUBMITTED BY: M. T. Bohlman DATE: 16 January 1979

M. T. Bohlman

APPROVED BY:

OPERATING COMMITTEE (BY): _____ DATE: _____

CHIEF EXECUTIVE OFFICER: _____ DATE: _____

SL 2022 6/77

SUBJECT: INSPECTION OF TANK EQUIPMENT

I. PROCEDURAL OVERVIEW

All tank equipment must be inspected when entering a Sea-Land facility, whether empty, loaded or in relay. It is the responsibility of the origin terminal to only load tanks aboard a vessel which have been determined to be fit for service and for conditions which will be encountered at sea without leaking.

II. ORGANIZATIONAL UNITS AFFECTED

- All Sea-Land port and terminal facilities, worldwide.
- Corporate Special Commodities Services.
- All Garage Managers.
- All Special Commodities Operations Personnel.
- Corporate Equipment Engineering and Maintenance.

III. DEFINITION OF TERMS

None.

IV. OTHER RELATED POLICIES OR PROCEDURES

None.

V. RESPONSIBLE STAFF DEPARTMENT

Land Operations Services, Elizabeth, N.J.

VI. PROCEDURE

A. Origin Port Inspection

1. Empty Tank

When an empty tank arrives at a Sea-Land port or terminal, Maintenance personnel will perform an inspection. Form SL 660 (see Exhibit A) is completed in duplicate and all questions must be answered. Prior to dispatching a MC 306 or MC 307 tank to pick up a load, all gaskets must be replaced (with new gaskets)

SL 2021 6/77

VI. PROCEDURE (cont'd)

and a 10 psig (0.69 bars) pressure test, as described in 2.b. below, must be performed. The Terminal Manager may waive the required 10 psig pressure test if the empty tank is not being dispatched to pick up a hazardous material.

If any deficiencies are found, corrective action must be taken before the tank equipment can be used.

For those tanks that cannot be pressure checked after loading (see A.2.a.) all gaskets must be replaced and the shipper must be specially counseled as to proper procedures for securing all fittings prior to dispatching the tank.

2. Loaded Tank

a. Special Commodities Services Representative

When a loaded tank arrives at a Sea-Land port or terminal, the Special Commodities Services representative (or the person designated by the Terminal Manager to act as Special Commodities Services Representative) will initiate the inspection by completing the appropriate sections of form SL 660. All instructions as to placarding, opening of dome covers, sealing, etc. are to be outlined on the form by the S.C.S. (Special Commodities Services) representative before submitting it to Maintenance personnel to perform the mechanical inspection and pressure check. All loaded tanks must be pressure checked on arrival at terminal except:

(1) MC 303 series of tank.
(2) Tanks already under pressure by inert gas.
(3) Tanks containing products reactive to air or moisture.
(4) Tanks with customer seals for product quality integrity. (Coca Cola syrup, etc.).

b. Maintenance Personnel

Upon receipt of the partially completed SL 660 form, Maintenance personnel will perform the mechanical inspection excluding item 29 and 30 on the form. If the tank can be air pressure checked, (as determined by the Special Commodities Representative) the following low pressure check must be performed:

SL 2021 6/77

VI. PROCEDURE (cont'd)

(1) Remove blank flange on pressure inlet (nitrogen fitting).
(2) Install test fixture.
(3) Apply air pressure of 10 psig. (0.69 bars).

Note: Ensure that the temperature of the supplied air is within a few degrees of ambient (temperature of air surrounding tank) temperature.

(4) Shut off air supply pressure.
(5) Observe air pressure gauge for loss of pressure for a period of five to ten minutes.
(6) Coat all gasket areas and packing glands with soapy water (only necessary for unloaded tanks) and inspect dome covers, vent valves, and discharge valve assembly with all items in their normally closed position for evidence of air or product leakage.
(7) If no air pressure loss is noted and no evidence of product leakage is observed, relieve air pressure, replace test fixture with blank flange and release shipper's agent and load for packing and/or stowage.

If the inspection reveals any discrepancies in the ability of the tank to retain cargo, the Maintenance person will contact the S.C.S. representative for a joint decision as to corrective action to be taken. (Either fix the tank or return load to shipper.) Under no circumstances shall a tank be placed aboard a vessel if it is not able to retain the cargo, if it fails to hold pressure or if there is any evidence of cargo leakage.

After completion of the form, Maintenance will return both copies to the S.C.S representative if the tank is satisfactory.

B. Relay Port Inspection

When loaded tank equipment passes through a relay port, personnel at the relay port must inspect each tank for leakage or gasket deterioration. If any problem is found, corrective action should be taken and a form SL 660 should be completed to describe the activity.

SL 2021 6/77

VI. PROCEDURE (cont'd)

C. Processing of Form SL 660

On a weekly basis, terminal or port Maintenance and S.C.S. representatives must forward a copy of all inspection forms to the Equipment Engineering and Maintenance Department, Elizabeth, N.J.

VII. EXHIBITS

No.	Subject
A	Tank Inspection Form (SL 660)
B	Test Fixture Specification Drawing

SL 2021 6/77

REF. NO. 07-99-015

DATE ISSUED 18 Sept. 1978

SUBJECT: INSPECTION OF TANK EQUIPMENT

REVISION NO. Original

PAGE EXHIBIT A

TANK INSPECTION ☐ EMPTY ☐ LOADED	TANK NO.	DATE	TERMINAL
	DESTINATION		
CARRIER	MEETS CONDITIONS OF APPROVED COMMODITIES LIST—TANKS FOR CARRIAGE (RIGHT TANK, GASKETS, ETC.) YES ☐ NO ☐ (IF "NO", REFUSE SHIPMENT)		
NAME OF PRODUCT			

TYPE PLACARD	COMBUSTABLE ☐	FLAMMABLE ☐	POISON ☐	CORROSIVE ☐	NONE ☐	OTHER

SPECIAL INSTRUCTIONS	OPEN DOME COVERS YES ☐ NO ☐	BREAK SEALS YES ☐ NO ☐	10 PSIG HYDRO REQUIRED YES ☐ NO ☐

NITROGEN BLANKET	YES ☐	NO ☐
CUSTOMS SEAL	YES ☐	NO ☐

DETERMINE OUTAGE BY:— MEASUREMENT ☐ WEIGHT ☐

OUTAGE CHECK

GROSS WEIGHT ..... _____

TARE WEIGHT ..... _____

NET WEIGHT ..... _____

MAX. PRODUCT WEIGHT ..... _____

COMMODITY DEPTH (INCHES) ..... _____

"√" IF OK — "X" IF NOT

			CHECK HERE
FRONT	1	REQUIRED DATA PLATE(S) MUST BE PRESENT AND PERMANENTLY AFFIXED	
	2	HYDROSTATIC TEST PLATE DATE MUST BE WITHIN 5 YEARS. IF NOT NOTIFICATION MUST BE MADE TO E E & M DEPT. (ELIZ. N.J.)	
	3	PLACARD MUST CORRESPOND TO INFORMATION SUPPLIED BY S.C.S.	
	4	EMERGENCY CABLE OPERATOR MUST OPERATE FREELY	
RIGHT	5	DOT EXEMPTION NUMBER - MUST BE STENCILED AND LEGIBLE MC303 (DOT-E-7409) MC 306 (DOT-E-5854) MC 307 (DOT-E-6720)	
	6	HEATING PANEL RELIEF VALVE MUST BE PRESENT AND NOT CORRODED	
	7	PLACARD & PRODUCT NAME MUST CORRESPOND TO INFORMATION SUPPLIED BY S.C.S.	
	8	SIDE PANELING NO DAMAGE EXPOSING INSULATION TO MOISTURE	
BOTTOM	9	CLOSE OUT PANELS NO DAMAGE EXPOSING, INSULATION TO MOISTURE	
	10	HEATING PANEL OUTLETS - MC306; MC307 MUST BE OPERABLE (NOT PLUGGED)	
DISCHARGE BOX	11	BREAK SEALS OLD NO. _____ NEW NO. _____ AS OUTLINED IN SPECIAL INSTRUCTIONS	
	12	INTERNAL VALVE OPERATOR — MC 306; MC 307 MUST BE OPERABLE	
	13	INTERNAL VALVE ROD - MC 306; MC 307 MUST BE IN PLACE AND PROPERLY ADJUSTED	
	14	FUSIBLE LINK - MC 306; MC 307 MUST BE IN PLACE	
	15	EMERGENCY CABLE - MC 306; MC 307 MUST BE PROPERLY ATTACHED AND OPERABLE FROM REMOTE POSITION	
	16	DISCHARGE VALVE - MC 306; MC 307 MUST BE PROPERLY TIGHTENED	
	17	TIGHTEN ALL BOLTS - MC 306; MC 307 ALL BOLTS MUST BE PROPERLY TIGHTENED	
	18	LINE CAP - MC 306; MC 307 GASKETS MUST BE IN PLACE AND CAP TIGHTENED	

			CHECK HERE
TOP	19	BREAK SEALS OLD NO. _____ NEW NO. _____ AS OUTLINED IN SPECIAL INSTRUCTIONS	
	20	DOME COVERS MUST BE GASKETED AND WHEN CLOSED GASKET REMAINS IN POSITION	
	21	HOLD DOWN LUGS MUST BE TIGHTENED DOWN SECURELY	
	22	DRAINS MUST BE CLEAN - NO OBSTRUCTIONS OR DAMAGE TO PREVENT DRAINAGE	
	23	MC 303 VENT MUST BE IN POSITION, OPERABLE, ON INSIDE OF DOME COVER.	
	24	MC 303 FUSIBLE PLATE MUST BE IN POSITION - NOT DAMAGED AND TIGHTENED	
	25	MC 306 VENT - GUARDIAN 149 (GASKET REPLACED) MUST BE CLEAN, OPERABLE AND TESTED WITHIN 6 MONTHS	
	26	MC 307 VENT GUARDIAN 300 (GASKET REPLACED) MUST BE CLEAN, OPERABLE AND TESTED WITHIN 6 MONTHS	
	27	NITROGEN FITTING MUST NOT BE CRACKED OR BROKEN WITH GASKET IN PLACE AND TIGHTENED	
INTERIOR	28	MAKE INTERNAL INSPECTION ONLY IF CLEAN AND CHECKED FOR LIFE SUPPORT - CLEAN YES ☐ NO ☐ GAS OR ODOR FREE YES ☐ NO ☐	
	29	WELDS - PITS - CORROSION, IF ANY DETERIORATION IS NOTED — DEADLINE AND REPAIR PROBLEM	
REAR	30	PLACARD MUST CORRESPOND TO INFORMATION SUPPLIED BY S.C.S.	
	31	THERMOMETER MUST BE IN PLACE	
	32	CALIBRATION CHART MUST BE PROPERLY SECURED AND LEGIBLE	
	33	TIR PLATE MUST BE PROPERLY SECURED AND LEGIBLE	
	34	MC 303 INTERNAL VALVE OPERATOR MUST BE OPERABLE	
	35	MC 303 EMERGENCY CABLE MUST BE IN PLACE AND PROPERLY ADJUSTED, OPERABLE FROM REMOTE LOCATION	
	36	MC 303 FUSIBLE LINK MUST BE IN PLACE AND NOT DAMAGED	
	37	MC 303 LINE GATE VALVE MUST BE PROPERLY TIGHTENED	
	38	MC 303 LINE CAP GASKETS MUST BE IN PLACE AND CAP TIGHTENED	
	39	MC 303 TIGHTEN ALL BOLTS ALL BOLTS MUST BE PROPERLY TIGHTENED	
	40	MC 303 HEATING PANEL OUTLETS MUST BE OPERABLE NOT PLUGGED	
LEFT	41	SIDE PANELING NO DAMAGE EXPOSING INSULATION TO MOISTURE	
	42	PLACARD & PRODUCT NAME MUST CORRESPOND TO INFORMATION SUPPLIED BY S.C.S.	
	43	DOT EXEMPTION NUMBER — MUST BE STENCILED AND LEGIBLE MC 303 (DOT E-7409) MC 306 (DOT-E-5854) MC 307 (DOT-E-6720)	
FRONT	44	PRE TRIP INSPECTION DATE PERSON PERFORMING INSPECTION MUST DATE TANK, SIGN FORM AND RETURN IT TO SPECIAL COMMODITIES DEPT. ANY AND ALL DISCREPANCIES TO BE CORRECTED MUST BE NOTED IN REMARKS OR ON BACK OF FORM LISTING BY NUMBER.	
OVERALL	45	PASSED 10 PSIG HYDROSTATIC TEST	

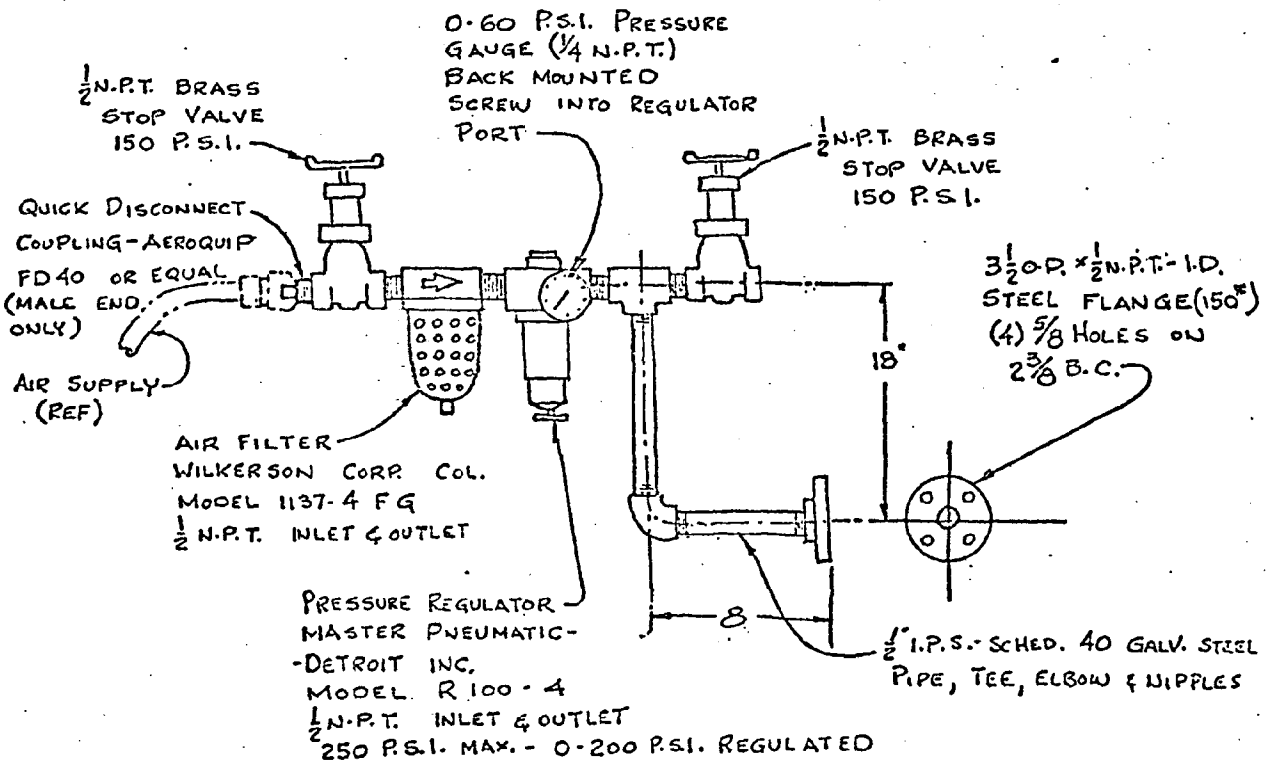
INSPECTORS SIGNATURE _____ DATE _____

REMARKS _____

TANKS WILL BE DEADLINED IF ITEMS 1, 2, 3, 7, 25, 26, 29, 30, 42, 43, 44, 45 ARE NOT OKAY. TANKS ARE NOT TO BE LOADED UNLESS THESE ITEMS ARE CORRECTED.

SL-660 8/78

Corporate Equipment, Engineering and Maintenance will order the pertinent parts for the air test apparatus for all garages.



TANK CONTAINER
AIR TEST APPARATUS
SK-1035 REV. 1

*Page Revised 1/12/79

I. PROCEDURAL OVERVIEW

It is the responsibility of the affected Terminal or Sea Operations Manager to report hazardous materials incidents to the Department of Transportation and Sea-Land management. Serious incidents are reported via telephone and all incidents are reported on a Department of Transportation Hazardous Materials Incident Report.

II. ORGANIZATIONAL UNITS AFFECTED

- All Sea-Land Port and Terminal Managers
- Members of the Hazardous Commodities Review Committee
- Masters of all Sea-Land Vessels
- All Sea Operations Managers

III. DEFINITION OF TERMS

Hazardous Materials Incident - an occurence that is caused by or involves a hazardous material which results in one or more of the following:

A. A person is killed;

B. A person is injured requiring his hospitalization;

C. Estimated carrier or other property damage exceeds $50,000;

D. A situation exists that represents a continuing danger to life at the scene of the incident;

E. Fire, breakage, spillage or suspected contamination occurs involving a shipment of radioactive material or etiologic agents;

F. There has been an unintentional release of hazardous materials from a package (including a tank).

IV. OTHER RELATED POLICIES OR PROCEDURES

None.

V. RESPONSIBLE STAFF DEPARTMENT

Land Operations Services, Elizabeth, N.J.

VI. PROCEDURE

A. Identification of Incident

The first person who identifies a hazardous materials incident is responsible, by law, to report the incident to appropriate management as soon as possible. If aboard a vessel, the master must be notified who will in turn notify the Sea Operations Manager of the vessel's home port; if on land, the Terminal Manager must be notified.

B. Report of Incident

1. Telephone Report

If an incident occurs on a Sea-Land vessel or in the United States which involves items A through E of the Hazardous Materials Incident definition above, the Terminal Manager or Sea Operations Manager must telephone the Department of Transportation at (202) 426-1830 and report the following:

a. Reporter's name,
b. Name and address of carrier,
c. Telephone number where reporter can be contacted,
d. Date, time and location of incident,
e. Extent of injuries, if any,
f. Classification, name and quantity of hazardous materials involved, if such information is available,
g. Type of incident and nature of hazardous materials involved and whether a continuing danger to life exists at the scene.

If the incident involves an etiologic agent, the above information must also be telephoned to the Center for Disease Control, U.S. Public Health Service, Atlanta, Georgia (404) 633-5313.

The above information must also be telephoned to the Director of Hazardous Commodities Services (201) 289-6000, ext. 2296 and the Director of Safety (201) 494-2599, etc. 470.

If the incident involves the simple unintentional release of hazardous material (item F. of definition) no telephone report is necessary.

VI. PROCEDURE (cont'd)

2. Written Report

All incidents must be reported within 15 days of their occurrence by the completion of a Department of Transportation Hazardous Materials Incident Report (Exhibit A). This form will be completed by the Terminal Manager or Sea Operations Manager, as appropriate, and distributed as follows.

- Two copies - If incident occurred on a Sea-Land Vessel or in the U.S., the Director, Office of Hazardous Materials Operations, Department of Transportation, Washington, D.C. 20590.
- One copy - Director, Hazardous Commodities Services, Elizabeth, N.J.
- One copy - Director of Safety, Menlo Park, N.J.

VII. EXHIBITS

Exhibit No.	Item
A	Department of Transportation form DOT F5800.1 "Hazardous Materials Incident Report".

SUBJECT: REPORTING OF HAZARDOUS MATERIALS INCIDENTS

DEPARTMENT OF TRANSPORTATION

Form Approved OMB No. 04-5613

HAZARDOUS MATERIALS INCIDENT REPORT

INSTRUCTIONS: Submit this report in duplicate to the Secretary, Hazardous Materials Regulations Board, Department of Transportation, Washington, D.C. 20590, (ATTN: Op. Div.). If space provided for any item is inadequate, complete that item under Section H, "Remarks", keying to the entry number being completed. Copies of this form, in limited quantities, may be obtained from the Secretary, Hazardous Materials Regulations Board. Additional copies in this prescribed format may be reproduced and used, if on the same size and kind of paper.

A INCIDENT

1. TYPE OF OPERATION
1 ☐ AIR 2 ☐ HIGHWAY 3 ☐ RAIL 4 ☐ WATER 5 ☐ FREIGHT FORWARDER 6 ☐ OTHER (Identify) _____

2. DATE AND TIME OF INCIDENT (Month - Day - Year)
_____ a.m.
_____ p.m.

3. LOCATION OF INCIDENT

B REPORTING CARRIER, COMPANY OR INDIVIDUAL

4. FULL NAME

5. ADDRESS (Number, Street, City, State and Zip Code)

6. TYPE OF VEHICLE OR FACILITY

C SHIPMENT INFORMATION

7. NAME AND ADDRESS OF SHIPPER (Origin address)

8. NAME AND ADDRESS OF CONSIGNEE (Destination address)

9. SHIPPING PAPER IDENTIFICATION NO.

10. SHIPPING PAPERS ISSUED BY
☐ CARRIER ☐ SHIPPER
☐ OTHER (Identify) _____

D DEATHS, INJURIES, LOSS AND DAMAGE

DUE TO HAZARDOUS MATERIALS INVOLVED

11. NUMBER PERSONS INJURED

12. NUMBER PERSONS KILLED

13. ESTIMATED AMOUNT OF LOSS AND/OR PROPERTY DAMAGE INCLUDING COST OF DECONTAMINATION (Round off in dollars)

14. ESTIMATED TOTAL QUANTITY OF HAZARDOUS MATERIALS RELEASED

E HAZARDOUS MATERIALS INVOLVED

15. CLASSIFICATION (Sec. 172.4)	16. SHIPPING NAME (Sec. 172.5)	17. TRADE NAME

F NATURE OF PACKAGING FAILURE

18. (Check all applicable boxes)

☐ (1) DROPPED IN HANDLING	☐ (2) EXTERNAL PUNCTURE	☐ (3) DAMAGE BY OTHER FREIGHT
☐ (4) WATER DAMAGE	☐ (5) DAMAGE FROM OTHER LIQUID	☐ (6) FREEZING
☐ (7) EXTERNAL HEAT	☐ (8) INTERNAL PRESSURE	☐ (9) CORROSION OR RUST
☐ (10) DEFECTIVE FITTINGS, VALVES, OR CLOSURES	☐ (11) LOOSE FITTINGS, VALVES OR CLOSURES	☐ (12) FAILURE OF INNER RECEPTACLES
☐ (13) BOTTOM FAILURE	☐ (14) BODY OR SIDE FAILURE	☐ (15) WELD FAILURE
☐ (16) CHIME FAILURE	☐ (17) OTHER CONDITIONS (Identify) _____	19. SPACE FOR DOT USE ONLY

Form DOT F 5800.1 (10-70)

SUBJECT: REPORTING OF HAZARDOUS MATERIALS INCIDENTS

G. PACKAGING INFORMATION - *If more than one size or type packaging is involved in loss of material show packaging information separately for each. If more space is needed, use Section H "Remarks" below keying to the item number.*

	ITEM		#1	#2	#3
20	TYPE OF PACKAGING INCLUDING INNER RECEPTACLES *(Steel drums, wooden box, cylinder, etc.)*				
21	CAPACITY OR WEIGHT PER UNIT *(55 gallons, 65 lbs., etc.)*				
22	NUMBER OF PACKAGES FROM WHICH MATERIAL ESCAPED				
23	NUMBER OF PACKAGES OF SAME TYPE IN SHIPMENT				
24	DOT SPECIFICATION NUMBER(S) ON PACKAGES *(21P, 17E, 3AA, etc., or none)*				
25	SHOW ALL OTHER DOT PACKAGING MARKINGS *(Part 173)*				
26	NAME, SYMBOL, OR REGISTRATION NUMBER OF PACKAGING MANUFACTURER				
27	SHOW SERIAL NUMBER OF CYLINDERS, CARGO TANKS, TANK CARS, PORTABLE TANKS				
28	TYPE DOT LABEL(S) APPLIED				
29	IF RECONDITIONED OR REQUALIFIED, SHOW	A	REGISTRATION NO. OR SYMBOL		
		B	DATE OF LAST TEST OF INSPECTION		
30	IF SHIPMENT IS UNDER DOT OR USCG SPECIAL PERMIT, ENTER PERMIT NO.				

H. REMARKS - Describe essential facts of incident including but not limited to defects, damage, probable cause, stowage, action taken at the time discovered, and action taken to prevent future incidents. Include any recommendations to improve packaging, handling, or transportation of hazardous materials. Photographs and diagrams should be submitted when necessary for clarification.

31. NAME OF PERSON PREPARING REPORT *(Type or print)*	32. SIGNATURE
33. TELEPHONE NO. *(Include Area Code)*	34. DATE REPORT PREPARED

Reverse of Form DOT F 5300.1 (10-70)

GPO: 1970 O - 486-316

SEA-LAND SERVICE, INC.

PROCEDURE TRANSMITTAL SHEET

DATE: 22 January 1979

TO: SEE DISTRIBUTION

FROM: ELIZABETH - C. A. Rodina, Information Systems

SUBJECT: BOOKING OF HAZARDOUS MATERIALS

I. CONCURRENCE		II. INFORMATION COPIES TO
M. Augustyniak		
M. Augustyniak	3/21/79	G. Cople, Hong Kong
Originator	Date	T. Yost, Iselin
		S. Palen, Rotterdam
	Date	
R. E. Henning		C. Raymond, Ft. Lauderdale
		N. Porter, Anchorage
	Date	J. Hinchcliffe, Seattle
Dir. Bulk Comm. Ser.		R. Ingram, Rio De Janeiro
	Date	
M. T. Bohlman		
M.T.B.	3/21/79	
Reg. Compliance	Date	
	Date	
S. Bushey		
S. Bushey	2/21	
Information Systems	Date	
	Date	
	Date	
	Date	
	Date	

I. CONCURRENCE – Please review the attached procedure and indicate any minor changes directly on the draft. Indicate concurrence by signing above your title and returning to me. Information Systems will telex reminders on FEB 21 1979; comments received through FEB 28 1979 will be included in final procedure. If you have major disagreement with the content of this procedure, please resolve with Originator before the above date and notify me of status.

II. INFORMATION COPIES – If you feel that your concurrence with the content of this procedure should be required, please notify me immediately.

cc: All Operating and Executive Committee Members

SL 2069 3/78

SUBJECT: BOOKING OF HAZARDOUS MATERIALS

I. PROCEDURAL OVERVIEW

Guidelines are set forth that allow Sea-Land to handle the maximum amount of approved types of hazardous materials without derogating safety.

II. ORGANIZATIONAL UNITS AFFECTED

- All Sea-Land Terminal, Port and Country Managers.
- All Division LP&C/SCS Managers
- All Sea Operations General Managers, Regional Managers and Managers.
- All Booking Personnel.
- All Sales Personnel.
- All Masters of Sea-Land Vessels.
- Members of the Hazardous Commodities Review Committee.

III. DEFINITION OF TERMS

- Hazardous Cargo - cargo that is regulated as a hazardous material and is not specifically listed within this procedure as prohibited, restricted, or cargo which requires special handling.

IV. OTHER RELATED POLICIES OR PROCEDURES

Policy - 07-07 - Carriage of Hazardous Materials.
Procedure - 07-07-001 - Carriage of Hazardous Materials by Sea-Land.

V. RESPONSIBLE STAFF DEPARTMENT

Land Operations Services Department, Elizabeth, N.J. (Hazardous Commodities Review Committee. Contact members of the HCRC: R.E. Henning, M.T. Bohlman, H. Krulder, J. Klein.)

VI. PROCEDURE

A. Class A explosives, Class A Poison, Cryogenic Liquids, Pyrophoric Liquids (in bulk i.e. packages over 110 gallons capacity) and organic peroxides (requiring refrigeration) are prohibited by Sea-Land Service. (See procedure 07-07-001 for expanded list of prohibited cargo.)

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VI. PROCEDURE (cont'd)

B. Booking numbers are not to be issued for restricted hazardous materials such as, Class B explosives, IMCO poison gases, Fluorine, Chlorine, Hydrogen Bromide, Borin Trifloride or Sodium Cyanide without prior approval of the Hazardous Commodities Review Committee (HCRC) and Division Management. See procedure 07-07-001 for an expanded list of restricted materials and how to request HCRC approval.

C. Radioactive material, Class C explosives, Ammunition, Ammonia Nitrate, Nitro Carbo, Nitral, Motor Fuel Antiknock Compound, Tetra Ethyl Lead, Yellow Phosphorous, cigarette lighters and motor vehicles require special handling. Procedure 07-07-001 must be checked before issuing booking numbers when dealing with these commodities.

When booking hazardous material or dangerous cargo, the following information is required from the Shipper, Freight Forwarder and any other concerned personnel.

- Service
- Booking Number (issued by Booking Department).
- Vessel/Voyage.
- Sailing Date.
- Supplier (if other than the shipper).
- Freight Forwarder (if one is utilized).
- Shipper.
- Ordered by (Name of individual requesting booking).
- Telephone number of individual requesting booking. Emergency response number if any.
- Commodity (proper shipping name or correct technical name as found in 49 CFR or IMCO code).
- Flash Point or Flash Point range (if a flammable or inflammable liquid).
- United Nations number.
- IMCO Class or DOT class.
- Type of equipment
- Weight and number of pieces to be shipped.
- Stowage information (to be determined from Hazardous Material List in conjunction with 49 CFR).
- Placard requirement (to be determined by Booking Department from Hazardous Material List or customer).
- Consignee.

VI. PROCEDURE (cont'd)

- Port of destination.
- Pick up information.
- Special instructions.

A. Booking personnel should remind customer to supply a signed shipper certification as required by 49 CFR and that shipment must be labeled, packaged and placarded properly for movement via vessel.

B. Copy of booking input card should be given to the area Hazardous Material Representative or Safety Manager for their review, until such time when system can supply them with a printed run of all hazardous material booked in their area.

C. When LTL Hazardous Cargo shipments are transported, a copy of the booking input card should be forwarded to the Manager or Supervisor of the warehouse where the cargo is to be received.

VI. PROCEDURE (cont'd)

Booking - Tank Procedure

Commodities not specifically listed by name in the Approved Commodities List - Tanks should not be booked for carriage in S/L's tank-containers.

When booking hazardous materials or non-hazardous material for movement in Sea-Land tanks, the following information should be disseminated or obtained as applicable:

Customer needs to know:

- Booking Number (not to be issued if product is not on Approved Commodities List Tanks).
- Vessel/Voyage
- Sailing Date

Sea-Land requires:

- Supplier (if other than shipper).
- Freight Forwarder (if one is utilized).
- Shipper.
- Ordered by (Name and telephone number of individual requesting booking).
- Commodity (Proper shipping name for hazardous material or correct technical name. Either must appear on the Approved Commodities List-Tanks before accepting the booking. If not on list, contact Director, Special Commodities Services, Elizabeth.
- Type of equipment (to be determined by Booking Department from Approved Commodities List Tanks) Do not use any other type of tank(s) than authorized.
- Number of tanks.
- Weight of shipment (The Approved Commodities List-Tanks must be consulted to ensure the maximum weight limitation has not been exceeded.)
- Stowage information (To be determined by Booking Department from Approved Commodities List-Tanks).
- Placard requirement.
- Consignee.
- Port of destination.
- Pick-up information (Name of primary carrier/alternate carrier, instructions, etc.)

VI. PROCEDURE (cont'd)

- Nitrogen hookup (To be indicated when a nitrogen blanket is necessary.)
- Special instructions (Shippers numbers, accessorial equipment, etc.)
- D/R information (Name of individual taking booking and date of booking. (To be filled in by Booking Department.)

*Note: Booking Department should remind customer to place the proper shipping name on both sides of S/L tanks (in 2 inch letters) along with proper placards when product is a hazardous material.

Reefer - Booking Procedure

Only those products authorized for movement in reefers on the Hazardous Material List or those specifically authorized by Corporate Special Commodities Service shall be booked - See procedure 07-07-001 exhibit G.

Codes on the Hazardous Material List for reefers are:

Yes - May be loaded into reefers.
No - May not be loaded into reefers.
UNK - unknown: shipper must supply chemical data sheet on product to Special Commodities Service.
NOR - Non-operating reefer only.

Booking numbers should not be issued to customers if there is any uncertainty about the product or its suitability for carriage in Sea-Land reefers.

VII. EXHIBITS

No.	Description
A	Hazardous Materials in Refrigerated Containers.

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HAZARDOUS MATERIALS IN REFRIGERATED CONTAINERS

Organic peroxides requiring refrigeration for stabilization (see prohibited cargo list) and flammable liquids with a flash point below 0 degrees F are prohibited from carriage in an operating refrigerated container on board Sea-Land vessels.

The following categories of hazardous materials can be carried on board Sea-Land vessels in refrigerated containers only with the approval of Director, Perishable Commodities Service, Corporate Special Commodities Service:

a. Hazardous materials in packages fitted with vents or relief devices.

b. Hazardous materials with an oral rate LD_{50} value of 3000 mg/kg or less.

c. Hazardous materials with a flash point below 73 degrees F provided the set temperature of the reefer is at least 5 degrees below the product's flash point.

d. Organic peroxides (other than those prohibited) with a SADT of 55 degrees F or higher.

In all cases, hazardous materials transported in refrigerated containers must be in packages that will maintain their integrity (i.e., leaktight) at an ambient temperature of 130 degrees F. For packages containing liquids the ullage space must not disappear at temperatures below 130 degrees F.

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