

VII. MECHANICAL

A. Bumpers

1 ea. Gantry Bumpers
2 ea. Boom Bumpers

B. Wire Rope

1 set Hoist Ropes (4 ropes)

C. Miscellaneous

2 ea. Cable Reel Drive Chain
12 ea. Clutch Slip Ring BH12501001
24 ea. Helwig Brushes 68-002312-022-6-02
2 sets Generator Belts (25 per set - one per crane)
#3350 & #3550
1 ea. Hoist/Clutch Coupling Set
2 ea. Main Hoist Reducers & Shafts (used)
Asst. O Rings/Gaskets
1 ea. Trolley Drive Shaft
4 ea. Trolley Gearboxes w/wheels (rebuilt-complete)
1 ea. Window Mount Gasket
5 ea. Yoke for Main Hoist

VIII. BRAKES

A. Thrustors

1 ea. Thrustor N76
1 ea. Thrustor T75
1 ea. Thrustor M74
3 ea. Thrustors

B. Shoes

6 sets Hoist Brake Shoes
1 set Boom Hoist Shoes
2 sets Trolley Brake Shoes

C. Miscellaneous

4 ea. Hoist Brake Drum Coupling
1 ea. Rail Brake Pump Assembly (needs modification)

TMT CRANE SHOP - TOOL INVENTORY

Description	Model#/Serial #	Apprx. Cost
Acetylene/Oxygen Set w/gages & hose		\$500.00
Air Compressor (Binks) 480 volt, 3-phase, 150 psi, 5 hp	385213	\$2875.00 (Dayton)
Air Compressor (Ingersoll-Rand) 480 volt, 3-phase, 150 psi, 5 hp	234-DS/64466	\$2875.00 (Dayton)
Air Compressor (Power Ex) 480 volt, 3-phase, 150 psi, 5 hp	1111871036397	\$2875.00 (Dayton)
Battery Charger (Marquette)	32-134	\$298.00 (Dayton)
Bench Grinder - 6" (Dayton)	4Z612C	\$100.00
Box, 10 drawer lockable Cart (Waterloo)		\$1599.00
Brake Line Wrench (Promate)	(ACA)	
C-Clamp, 10"		\$54.25
C-Clamp, 8"		\$32.45
C-Clamp, 3"	5C817	\$18.00
Cable Pully - 25 ft., 1 1/2 ton		\$390.00
Chain Breaker	CBT-60 (Bartlett)	\$20.00
Creeper - H/D	95602 (ACA)	\$62.00
Crows Foot Tool		\$16.85
Cylinder Hone	(ACA)	
Digital Caliper (Mitutoyo)	A.J. Hagerty	\$110.00
Digital Multimeter (Simpson)	460/07467/260	\$230.00
Drill Kit (Unibit Step)	4A954	\$48.33

ca.	Face Shield		\$10.21
ca.	Feeler Gauge (Proto)	5C589	\$27.85
ca.	Fluke Multimeter & Case	1A783	\$109.00
ca.	Forklift (Allis-Chalmers), 4400# capacity	AMR-526014	\$3000.00
ca.	Garden Hose, 100 ft.		\$70.87 ea.
ca.	Hand Pumps (Teel)	2PO-93B	\$130.00 ea.
Asst.	Hardware		\$3000.00
ca.	Heat Gun (Master Appliance)		\$100.00
ca.	Hydraulic Jack, 30-ton (OTC)		\$349.00
ca.	Hydraulic Puller Set, 35-ton (OTC)		\$1693.00
ca.	Ideal Electrical Fish	(United Lite)	
ca.	Impact Socket, 36 mm		\$12.77
ca.	Longtip (Alspray)		\$58.00
set	Manual Pullers (OTC)		\$801.00
ca.	Megger Insulation Tester (B&K)	3GD34	\$129.00
ca.	Oil Filter Wrench		\$13.00
ca.	Oil Hand Pump		\$67.29
ca.	Parts Washer (AFF Hydro Flow)	31200	\$200
ca.	Photo-tach (Pioneer)	36/14509	\$309.00
ca.	Pneumatic Grease Gun, Air Driven (Lincoln) 260-8		\$59.50
ca.	Pressure Washer		
ca.	Ratchet Crimp	T1715 (H.Horn)	\$85.00
ca.	Ratchet Puller, 2-ton		\$146.89
ca.	Shims, assorted		\$252.83

EXHIBIT "A"

THE PREMISES

The Tioga Container Terminal ("TCT") consists of Tioga IA (the northern portion of Tioga I Terminal). The Tioga Breakbulk Terminal ("TBT") consists of two areas: Tioga IB and Tioga II. TBT and TCT together comprise the Tioga Marine Terminal ("TMT").

TCT covers approximately 50.221 acres in area and is bounded by Delaware Avenue to the north/northwest, Tioga IB to the south/southwest, and the Delaware River to the southeast. It includes the following major features:

- **Vessel Berths:** Two (2) marginal vessel berths abutting each other and located on the southeastern portion of TCT. The total length of the berths is approximately one thousand four hundred and nineteen (1,419) feet and their depth is approximately thirty-six (36) feet.
- **Crane and Track:** Crane track approximately one thousand three hundred and seventy-five (1,375) to approximately one thousand four hundred and ninety-two (1492) feet in length runs parallel to the vessel berths described above. Two (2) forty-five (45) ton gantry container cranes are positioned over and perpendicular to the crane track.
- **Buildings:**

Tioga I

A terminal equipment maintenance and repair shop (a/k/a the M&R Building), located southeast of Delaware Avenue and northeast of the PGW easement.

A gatehouse for incoming and outgoing containers, located southeast of Delaware Avenue and southwest of both the PGW easement and railroad tracks.

Tioga II

Building 179 (a/k/a the Butler Building and Shed 179), a gas-heated container freight station with a total area of approximately forty thousand (40,000) square feet. It has an approximately twenty-two (22) foot clearance under the roof trusses, a northwest loading dock with canopied positions for eight (8) trucks, and a southwest loading dock with canopied positions for twenty (20) trucks.

- **Reefer Outlets:** Eighty (80) refrigerated container receptacles (480 volt, 3 phase) are located southeast of Delaware Avenue and northeast of the M&R Bldg.

TBT covers approximately 46.541 acres in area (Tioga IB contains approximately 33.256 acres and Tioga II contains approximately 13.285 acres.) Tioga IB is bounded by Delaware Avenue to the northwest, Tioga IA to the northeast, and the RoRo Berth and the connecting road to Tioga II to the southwest. Tioga IB includes the following major features:

- **Vessel Berths:** Three (3) marginal vessel berths abutting each other and located on the southeastern portion of Tioga IB. The total length of the berths is approximately one thousand seven hundred and thirty-six (1,736) feet and their depth is approximately thirty-six (36) feet. One slip berth at the south end of Tioga IB runs approximately six hundred and ten (610) feet.
- **Buildings:**
Tioga I Transit Shed (a/k/a Tioga I Shed), running northeast to southwest on the southeastern portion of Tioga I and parallel to the vessel berths. It is a gas-heated storage building with a total area of approximately three hundred thousand (300,000) square feet. It has an approximately twenty (20) foot clearance under the roof trusses and forty-eight (48) canopied truck loading doors with truck seals and levelers.

Tioga III Building (a/k/a Tioga III Shed), located in the area between the southwestern end of the Tioga I Building and the slip berth. It is a gas-heated building containing transit shed space and terminal space with a total area of approximately ninety-seven thousand five hundred (97,500) square feet. It has an approximately twenty-two (22) foot clearance under the roof trusses and thirty-four (34) canopied truck loading doors with truck seals and levelers.

- **Reefer Outlets:** Forty (40) refrigerated container receptacles (four at 240 volt, 3 phase; thirty-six at 480 volt, 3 phase) are located southeast of Delaware Avenue and near the north area of Tioga IB
- **Trailer Parking Spaces, Service and Access Roads:** these are located approximately along the northwest side of Tioga IB.

Tioga II is bounded by Delaware Avenue to the northwest, Tioga IB to the northeast, and Allegheny Avenue to the southwest. Tioga II includes the following major features:

- **Buildings:**
A carpenter shop (a/k/a Maintenance Shop), located on the northwest side of Tioga II. It is a masonry structure approximately 61' by 160' by 15/25 feet high, with an approximately 21.25' by 30' by 12-foot high extension. It has a total area of approximately ten thousand four hundred and twelve (10,412) square feet, most of which is floor area on grade; approximately nine hundred and sixty (960) square feet are in a mezzanine area.

Tioga II Building (a/k/a Tioga II, Reefer Shed, Temperature Control Shed, transit shed/warehouse), located on the southeast side of Tioga II. It has a total area of approximately ninety thousand (90,000) square feet divided into five (5) rooms independently capable of electric cooling to thirty-two degrees (32°) Fahrenheit. Rooms 1 and 2 each contain

approximately twenty-five thousand (25,000) square feet of space; the other three rooms contain thirty-three hundred (3,300), fifty-five hundred (5,500) and thirty-one thousand two hundred (31,200) square feet for an approximate total of forty thousand (40,000) square feet of space. There is a mechanic's shop (a/k/a mechanical room) at the southwest end of the building.

Storage Building, a container freight storage building located adjacent to Berth 2, southeast of Delaware Avenue, and northeast of the Tioga II Building.

- **Reefer Outlets:** Thirty-six (36) refrigerated container receptacles (480 volt, 3 phase) are located southeast of the Carpenter Shop and northwest of the Tioga II Building.
- **Trailer Parking Spaces, Service and Access Roads:** these are located approximately along the north side of Tioga II.

TIOGA MARITIME TERMINAL MASTER PLAN (Copy on Following Page)

EXHIBIT "B"

PERMITTED EXCEPTIONS

1. Easements, agreements, restrictions, defects, liens, encumbrances, adverse claims or other matters affecting the Premises whether or not of record;
2. Easements visible upon the ground;
3. Lease Agreement between Philadelphia Port Corporation, as lessor, and Delaware River Terminal, Inc., as lessee, dated January 19, 1970, as amended, and Lease Agreement between Philadelphia Port Corporation, as lessor, and DRT Industries, Inc., as lessee, dated July 14, 1975, as amended, each as assigned and/or assumed by PRPA, as lessor, and GATX Terminals Corporation, as lessee;
4. Rights or claims by parties in possession or under the terms of any recorded or unrecorded leases or other agreements;
5. Trackage rights of railroads;
6. Riparian and navigational rights of the United States, the Commonwealth and the public;
7. Rights-of-way for public streets;
8. Agreement between Neatsfoot Oil Refineries Corporation, successor to The Berg Company and Delaware River Terminal and Warehouse Company, dated 5/28/1954 and recorded in the County of Philadelphia in Deed Book MLS 771 page 453;
9. Easement of a 33-foot wide railroad right-of-way as set forth in Deed Book JJC 21 page 149;
10. Reservation of perpetual easements for pipeline as set forth in Deed Book JRS 614 page 495;
11. Easement of right-of-way for drainage purposes dated 10/7/1968 and recorded 10/8/1968 in Deed Book JRS 231 page 386;
12. Easement of a 33-foot wide right-of-way dated 10/7/1968 and recorded 10/8/1968 in Deed Book JRS 231 page 386;
13. Agreement between Delaware River Terminal and Warehouse Co. and the City of Philadelphia dated 1/25/1957 and recorded 2/7/1957 in Deed Book CAB 510 page 410;

14. Lease between The Philadelphia Electric Company dated 5/14/1879 and recorded in Deed Book LW 39 page 481;
15. Agreement between Delaware River Terminal and Warehouse Co. (now known as Delaware River Terminal Inc.) and the City of Philadelphia dated 1/25/1957 and recorded 2/7/1957 in Deed Book CAB 510 page 397;
16. 60-foot wide right-of-way for sewer construction and maintenance lying within the bed of former Westmoreland Street;
17. Drainage right-of-way within the beds of former Ontario Street and former Tioga Street and former Venango Street and former Castor Avenue created by Ordinance dated 8/17/1972;
18. Right-of-Way for drainage purposes, water main purposes, gas main purposes and public utility purposes created by Ordinance dated 12/27/1971 (east side of Delaware Avenue);
19. Right-of-Way for sewer maintenance and construction within the bed of former Castor Avenue, East of Delaware Avenue created by Ordinance dated 8/10/1948;
20. Lease Agreement between Philadelphia Electric Company and Philadelphia Port Corporation dated 4/27/1976, a Memorandum of which was recorded in the County of Philadelphia in Deed Book DCC 1137 page 85;
21. Reservation as set forth in Deed Book CAD 1002 page 342;
22. Covenants and Agreements as authorized by Ordinance (Bill No. 2487) of The Council of the City of Philadelphia, approved by the Mayor on June 9, 1967 as more specifically set forth in the Agreement of Sale authorized thereby between The Philadelphia Electric Company and the City of Philadelphia dated 6/7/1967 in paragraphs 2 to 11 inclusive;
23. Agreement between John A. Lewis, Executor under the Will of John F. Lewis, deceased, and Bell Telephone Company dated 11/26/1900 and recorded in the County of Philadelphia in Deed Book JV 217 page 169;
24. 30-foot wide right-of-way of the Kensington and Tacony Railroad through the Premises; and
25. Rights of the public to that portion of the Premises between the bulkhead line and the pierhead line as established and approved by the Secretary of War 9/10/1940.

EXHIBIT "C"

LEASES AND CONTRACTS

1. Lease Agreement between PRPA and Tioga Fruit Terminal, Inc. dated November 21, 1997.
2. Lease Agreement between PRPA and Maritime Terminals of Pennsylvania, Inc. dated February 7, 1997, as amended by letter agreements dated December 16, 1997.
3. Nonexclusive License Agreement between PRPA and Crowley American Transport, Inc. dated February 9, 1995.
4. Lease Agreement between PRPA and Continental Salt, Inc. dated October, 1997, effective February 1, 1998.
5. Security Services Contract between PRPA and Ring Maritime Services, Inc. dated December 1, 1997.
6. Contract between PRPA and Wells Fargo Alarm Services, Inc. dated November 21, 1997.
7. Contract between PRPA and Fluidics, Inc. dated December 24, 1997.
8. Agreement between PRPA and A&S Sprinkler Co., Inc.
9. Purchase Order #P97-042 between PRPA and Fluidics, Inc. dated October 22, 1997.
10. Agreement between PRPA and Regal Cruise Line for berthing, shed space to accommodate the embarking and discharging of passengers and parking space for the parking of vehicles of such passengers and short-term parking for arrival and departure of such passengers.

EXHIBIT "D-1"

GUARANTY BY INTERNATIONAL TERMINAL OPERATING CO., INC.

This Guaranty is made of this ____ day of _____ 1998, by INTERNATIONAL TERMINAL OPERATING CO., INC., having an address at One Evertrust Plaza, Jersey City, NJ 07302 ("Guarantor").

A. Delaware River Stevedores, Inc. ("DRS") was the successful proposer under the Philadelphia Regional Port Authority Request for Proposals for the operation of the Tioga Marine Terminal (the "RFP").

B. DRS pursuant to the RFP, has entered into a contract with the Philadelphia Regional Port Authority (the "PRPA") for such services (the "Contract") dated as of the date of this Guaranty, which Contract required the execution and delivery of this Guaranty by Guarantor. Hereinafter DRS shall be referred to as the "Provider".

C. The PRPA has requested, and Guarantor has agreed, that Guarantor execute and deliver an unconditional, irrevocable and unlimited guaranty to the PRPA of all obligations of Provider to the PRPA.

D. The execution and delivery by Guarantor of this Guaranty is a material inducement to PRPA to execute the Contract, and Guarantor expects to derive economic benefit from execution by PRPA and DRS of the Contract.

THEREFORE, in consideration of and as an inducement for the granting, execution and delivery of the Contract, and for other good and valuable consideration, Guarantor, intending to be legally bound hereby, irrevocably and unconditionally agree as follows:

1. Guarantor hereby guarantees to the PRPA the full, faithful and prompt performance and observance of all the covenants, terms, conditions and agreements provided in Articles III and IV of the Contract to be performed and observed by the Provider, its successors and assigns; Guarantor does hereby become surety to the PRPA, its successors and assigns, for and with respect to all of the aforesaid obligations of the Provider under Articles III and IV of the Contract. Guarantor hereby covenants and agrees to and with the PRPA, its successors and assigns, that if default shall at any time be made by the Provider, its successors and assigns, in the performance of any of the covenants, terms, conditions or agreements contained in Articles III and IV of the Contract, and such default is not cured within any applicable cure period and any required notice has been given to Provider, Guarantor will forthwith faithfully perform and fulfill all of such covenants, terms, conditions and agreements so that the PRPA will not suffer any damages, costs or expenses as a result of a default by Provider, its successors and assigns; provided, however, that should the PRPA suffer any such damages, costs or expenses, Guarantor will forthwith pay to the PRPA all damages, costs and expenses that may arise in consequence of any default by the Provider, its successors and assigns, under Articles III and IV of the Contract (including, but not limited to, all attorneys' fees and court costs incurred by the PRPA in any successful enforcement of this Guaranty). Nothing contained in this Guaranty is intended to (i) expand the damages, costs or expenses recoverable under the Contract or (ii) impair Guarantor's right to assert any defenses available to the Provider pursuant to the Contract, unless otherwise specifically provided herein.

2. This Guaranty shall be a continuing Guaranty, and (whether or not Guarantor shall have notice or knowledge of any of the following) Guarantor hereby waives any rights Guarantor may have by reason of any forbearance, modification, waiver, renewal or extension which the PRPA may grant, or to which the PRPA and the Provider may agree, with respect to the Contract, waives notice of acceptance of this Guaranty, and waives presentment, demand, notice or protest of any kind except notices to Provider as specifically set forth in the Contract.

3. The obligations of Guarantor under this Guaranty are primary, absolute, independent, irrevocable and unconditional. This shall be an agreement of suretyship as well as of guaranty. Guarantor's liability hereunder is direct and may be enforced without the PRPA being required to resort to any other rights, remedy or security and this guaranty shall be enforceable against Guarantor, and Guarantor's administrators, successors and assigns, without the necessity for any suit or proceedings on the PRPA's part of any kind or nature whatsoever against the Provider, its successor and assigns, and without the necessity of any notice of nonperformance or nonobservant or the continuance of any such default or of the PRPA's intention to act in reliance hereon or of any other notice or demand to which Guarantor might otherwise be entitled, all of which Guarantor hereby expressly waives, other than notices to Provider as specifically set forth in the Contract. Guarantor hereby expressly agrees that the validity of this Guaranty and the obligations of Guarantor hereunder shall not be terminated, affected or impaired by reason of the assertion or the failure to assert by the PRPA against the Provider, or the Provider's successors and assigns, of any of the rights or remedies reserved to the PRPA, pursuant to the provisions of the Contract.

4. The obligations of Guarantor under this Guaranty shall be unconditional and irrevocable, irrespective of either (a) the existence of any security given to secure the Provider's obligations under the Contract; (b) the sale, assignment or other transfer of all or any portion of the Contract or any interest of the Provider under the Contract; or (c) any defense that may arise by reason of the incapacity, or lack of authority of the Provider or Guarantor or the failure of the PRPA, to file or enforce a claim against the estate of the Provider in any bankruptcy or other proceeding.

5. Guarantor represents and warrants that (a) Guarantor has either examined the Contract or has had an opportunity to examine the Contract and has waived the right to examine it; (b) Guarantor has full power, authority and legal right to enter into, execute and deliver this Guaranty, the execution and delivery of this Guaranty has been duly authorized by Guarantor; (c) this Guaranty is a valid and binding legal obligation of guarantor, and is fully enforceable against Guarantor in accordance with its terms; (d) the execution, delivery and performance by Guarantor of this Guaranty will not violate or constitute a default under any other agreement or instrument to which Guarantor is a party or is bound; and (e) if Guarantor or Provider has delivered to the PRPA financial statements of Guarantor, there has been no material adverse change in the financial condition of Guarantor from the financial condition or Guarantor shown on such financial statements delivered to the PRPA.

6. Notwithstanding anything contained in this Guaranty or in the Contract to the contrary, Guarantor shall be in default under this Guaranty upon the making by Guarantor of an assignment for the benefit of creditors, or the appointment of a trustee or receiver for Guarantor, or for any property of Guarantor, or the commencement of any proceeding by or against Guarantor, under any bankruptcy, reorganization, arrangement, insolvency, readjustment, receivership or similar law, or if any representation or warranty made by Guarantor in this Guaranty is incorrect in a material respect or fails to state a material fact which is necessary to make the representation or warranty not misleading, or if Guarantor fails to perform any of its obligations under this Guaranty after any applicable grace period and any required notice to Provider has been given, or if Guarantor causes or suffers to occur a material adverse change in

its financial condition which causes, or may in the reasonable option of the PRPA, cause Guarantor to be unable to perform its obligations hereunder.

7. Guarantor hereby authorizes any attorney of any court of record in Pennsylvania, or elsewhere, to appear for Guarantor in any and all actions brought on this Guaranty, and to confess judgment against Guarantor for (a) all damages, costs and expenses that may occur in consequence of any default by Guarantor hereunder, and (b) all damages, costs and expenses that may arise in consequence of any default by Provider, its successors and assigns, under Articles III and IV of the Contract, and (c) all costs of suit and an attorney's commission of five percent (5%), together with interest on any judgment obtained by the PRPA at a rate of 125% per annum of the prime rate of First Union National Bank (or its equivalent in the event there shall be no prime rate) or the highest amount permitted by law, whichever is lower, including interest at that rate from and after the date of any sheriff's or judicial sale until actual payment is made to the PRPA of the full amount due the PRPA, and for so doing this shall be a good and sufficient warrant. Guarantor waives and relinquishes all errors, defects and imperfections in the entry of judgment as aforesaid, or in any proceeding pursuant thereto, and all benefits that may accrue to Guarantor by virtue of any law or rule of court relating to a stay of execution or exempting any property from levy or sale under execution. The authority therein granted to confess judgment shall not be exhausted by any exercise thereof, but shall continue from time to time and at all times until all obligations of the Provider to the PRPA have been fully discharged. If a true copy of this Guaranty (and of the truth of the copy an affidavit thereof by the PRPA shall be sufficient evidence) shall be filed in any such suit, action or actions, it shall not be necessary to file the original as a warrant of attorney, any rule of court, custom or practice to the contrary notwithstanding.

8. All rights and remedies of the PRPA under this Guaranty, the Contract or by law are separate and cumulative, and the exercise of one shall not limit or prejudice the exercise of any other such rights or remedies. The enumeration in this Guaranty of any waivers or consents by Guarantor shall not be deemed exclusive of any additional waivers or consents by Guarantor which may be deemed to exist in law or equity. No delay or omission by the PRPA in exercising any such right or remedy shall operate as a waiver thereof. No waiver of any right and remedies hereunder, and no modification or amendment of this Guaranty shall be deemed made by the PRPA or the Guarantor unless in writing and duly signed by the party against which enforcement is being sought. Any such written waiver shall apply only to the particular instance specified therein and shall not impair the further exercise of such right or remedy or of any right or remedy of the PRPA, and no single or partial exercise of any right or remedy under this Guaranty shall preclude any other or further exercise thereof or any other rights or remedy. This Guaranty shall apply to the Provider's obligations pursuant to any extension, renewal, amendment, modification and supplement of or to the Contract provided for in the original and supplement of or to the Contract provided for in the original provisions of the Contract or otherwise agreed to in writing by the PRPA and the Provider, as well as to the Provider's obligations thereunder in accordance with the original provisions of the Contract.

9. This Guaranty shall be binding upon Guarantor, and Guarantor's administrators, successors and assigns, and shall inure to the benefit of the PRPA and its successors and assigns.

10. Guarantor will deliver to the PRPA, within one hundred twenty (120) days after the end of each fiscal year of Guarantor, a current statement of financial condition of Guarantor as prepared by an independent certified public accountant.

11. Guarantor will not sell, transfer or otherwise dispose of all or a substantial part of its assets to, or consolidate with, or merge into, any person or entity (except a wholly

owned subsidiary of Guarantor) or permit any other person or entity (except a wholly owned subsidiary of Guarantor) to merge into Guarantor, unless:

A. Such successor shall expressly assume in writing the due and punctual performance and observance of all of the terms, covenants and conditions of this Guaranty to be performed or observed by the Guarantor to the same extent as if such successor had originally executed this Guaranty; and

B. Immediately after such consolidation, merger, sale, lease or other disposition the Guarantor or such successor, as the case may be, shall not be in default in the performance or observance of any of the terms, covenants or conditions of this Guaranty, and immediately following such consolidation, merger, sale, lease or other disposition, such successor shall have a financial condition which is not materially inferior to the financial condition of Guarantor immediately prior to such consolidation, merger, sale, lease or other disposition.

12. In the event Guarantor consists of more than one person, firm or corporation, the obligations and liabilities hereunder of such persons, firms and corporations shall be joint and several, and the word "Guarantor" shall mean all or some or any of them.

13. If any provision of this Guaranty is held to be invalid or unenforceable by a court of competent jurisdiction, the other provisions of this Guaranty shall remain in full force and effect and shall be liberally construed in favor of the PRPA, in order to effect the provisions of this Guaranty.

14. Guarantor agrees that this Guaranty shall be governed by and construed according to the laws of the Commonwealth of Pennsylvania regardless of where the residence or domicile of Guarantor is now or may hereafter be located.

15. The undersigned does hereby consent that any such action or proceeding against it may be commenced in any court of competent jurisdiction and proper venue within the Commonwealth of Pennsylvania.

IN WITNESS WHEREOF, Guarantor, intending to be legally bound hereby, has caused this Guaranty to be executed by its duly authorized officers and has caused its corporate seal to be hereunto affixed, and duly attested, as of the date first above written.

ATTEST:

INTERNATIONAL TERMINAL OPERATING CO., INC.

Name:
Title:

BY: _____
Name:
Title:

EXHIBIT "D-2"

GUARANTY BY STEVEDORING SERVICES OF AMERICA, INC.

This Guaranty is made of this ____ day of _____ 1998, by STEVEDORING SERVICES OF AMERICA, INC. having an address at 1131 SW Klickitat Way, Seattle, WA 98134 ("Guarantor").

A. Delaware River Stevedores, Inc. ("DRS") was the successful proposer under the Philadelphia Regional Port Authority Request for Proposals for the operation of the Tioga Marine Terminal (the "RFP").

B. DRS pursuant to the RFP, has entered into a contract with the Philadelphia Regional Port Authority (the "PRPA") for such services (the "Contract") dated as of the date of this Guaranty, which Contract required the execution and delivery of this Guaranty by Guarantor. Hereinafter DRS shall be referred to as the "Provider".

C. The PRPA has requested, and Guarantor has agreed, that Guarantor execute and deliver an unconditional, irrevocable and unlimited guaranty to the PRPA of all obligations of Provider to the PRPA.

D. The execution and delivery by Guarantor of this Guaranty is a material inducement to PRPA to execute the Contract, and Guarantor expects to derive economic benefit from execution by PRPA and DRS of the Contract.

THEREFORE, in consideration of and as an inducement for the granting, execution and delivery of the Contract, and for other good and valuable consideration, Guarantor, intending to be legally bound hereby, irrevocably and unconditionally agree as follows:

1. Guarantor hereby guarantees to the PRPA the full, faithful and prompt performance and observance of all the covenants, terms, conditions and agreements provided in Articles III and IV of the Contract to be performed and observed by the Provider, its successors and assigns; Guarantor does hereby become surety to the PRPA, its successors and assigns, for and with respect to all of the aforesaid obligations of the Provider under Articles III and IV of the Contract. Guarantor hereby covenants and agrees to and with the PRPA, its successors and assigns, that if default shall at any time be made by the Provider, its successors and assigns, in the performance of any of the covenants, terms, conditions or agreements contained in Articles III and IV of the Contract, and such default is not cured within any applicable cure period and any required notice has been given to Provider, Guarantor will forthwith faithfully perform and fulfill all of such covenants, terms, conditions and agreements so that the PRPA will not suffer any damages, costs or expenses as a result of a default by Provider, its successors and assigns; provided, however, that should the PRPA suffer any such damages, costs or expenses, Guarantor will forthwith pay to the PRPA all damages, costs and expenses that may arise in consequence of any default by the Provider, its successors and assigns, under Articles III and IV of the Contract (including, but not limited to, all attorneys' fees and court costs incurred by the PRPA in any successful enforcement of this Guaranty). Nothing contained in this Guaranty is intended to (i) expand the damages, costs or expenses recoverable under the Contract or (ii) impair Guarantor's right to assert any defenses available to the Provider pursuant to the Contract, unless otherwise specifically provided herein.

2. This Guaranty shall be a continuing Guaranty, and (whether or not Guarantor shall have notice or knowledge of any of the following) Guarantor hereby waives any rights Guarantor may have by reason of any forbearance, modification, waiver, renewal or extension which the PRPA may grant, or to which the PRPA and the Provider may agree, with respect to the Contract, waives notice of acceptance of this Guaranty, and waives presentment, demand, notice or protest of any kind except notices to Provider as specifically set forth in the Contract.

3. The obligations of Guarantor under this Guaranty are primary, absolute, independent, irrevocable and unconditional. This shall be an agreement of suretyship as well as of guaranty. Guarantor's liability hereunder is direct and may be enforced without the PRPA being required to resort to any other rights, remedy or security and this guaranty shall be enforceable against Guarantor, and Guarantor's administrators, successors and assigns, without the necessity for any suit or proceedings on the PRPA's part of any kind or nature whatsoever against the Provider, its successor and assigns, and without the necessity of any notice of nonperformance or nonobservant or the continuance of any such default or of the PRPA's intention to act in reliance hereon or of any other notice or demand to which Guarantor might otherwise be entitled, all of which Guarantor hereby expressly waives, other than notices to Provider as specifically set forth in the Contract. Guarantor hereby expressly agrees that the validity of this Guaranty and the obligations of Guarantor hereunder shall not be terminated, affected or impaired by reason of the assertion or the failure to assert by the PRPA against the Provider, or the Provider's successors and assigns, of any of the rights or remedies reserved to the PRPA, pursuant to the provisions of the Contract.

4. The obligations of Guarantor under this Guaranty shall be unconditional and irrevocable, irrespective of either (a) the existence of any security given to secure the Provider's obligations under the Contract; (b) the sale, assignment or other transfer of all or any portion of the Contract or any interest of the Provider under the Contract; or (c) any defense that may arise by reason of the incapacity, or lack of authority of the Provider or Guarantor or the failure of the PRPA, to file or enforce a claim against the estate of the Provider in any bankruptcy or other proceeding.

5. Guarantor represents and warrants that (a) Guarantor has either examined the Contract or has had an opportunity to examine the Contract and has waived the right to examine it; (b) Guarantor has full power, authority and legal right to enter into, execute and deliver this Guaranty, the execution and delivery of this Guaranty has been duly authorized by Guarantor; (c) this Guaranty is a valid and binding legal obligation of guarantor, and is fully enforceable against Guarantor in accordance with its terms; (d) the execution, delivery and performance by Guarantor of this Guaranty will not violate or constitute a default under any other agreement or instrument to which Guarantor is a party or is bound; and (e) if Guarantor or Provider has delivered to the PRPA financial statements of Guarantor, there has been no material adverse change in the financial condition of Guarantor from the financial condition of Guarantor shown on such financial statements delivered to the PRPA.

6. Notwithstanding anything contained in this Guaranty or in the Contract to the contrary, Guarantor shall be in default under this Guaranty upon the making by Guarantor of an assignment for the benefit of creditors, or the appointment of a trustee or receiver for Guarantor, or for any property of Guarantor, or the commencement of any proceeding by or against Guarantor, under any bankruptcy, reorganization, arrangement, insolvency, readjustment, receivership or similar law, or if any representation or warranty made by Guarantor in this Guaranty is incorrect in a material respect or fails to state a material fact which is necessary to make the representation or warranty not misleading, or if Guarantor fails to perform any of its obligations under this Guaranty after any applicable grace period and any required notice to Provider has been given, or if Guarantor causes or suffers to occur a material adverse change in

its financial condition which causes, or may in the reasonable option of the PRPA, cause Guarantor to be unable to perform its obligations hereunder.

7. Guarantor hereby authorizes any attorney of any court of record in Pennsylvania, or elsewhere, to appear for Guarantor in any and all actions brought on this Guaranty, and to confess judgment against Guarantor for (a) all damages, costs and expenses that may occur in consequence of any default by Guarantor hereunder, and (b) all damages, costs and expenses that may arise in consequence of any default by Provider, its successors and assigns, under Articles III and IV of the Contract, and (c) all costs of suit and an attorney's commission of five percent (5%), together with interest on any judgment obtained by the PRPA at a rate of 125% per annum of the prime rate of First Union National Bank (or its equivalent in the event there shall be no prime rate) or the highest amount permitted by law, whichever is lower, including interest at that rate from and after the date of any sheriff's or judicial sale until actual payment is made to the PRPA of the full amount due the PRPA, and for so doing this shall be a good and sufficient warrant. Guarantor waives and relinquishes all errors, defects and imperfections in the entry of judgment as aforesaid, or in any proceeding pursuant thereto, and all benefits that may accrue to Guarantor by virtue of any law or rule of court relating to a stay of execution or exempting any property from levy or sale under execution. The authority therein granted to confess judgment shall not be exhausted by any exercise thereof, but shall continue from time to time and at all times until all obligations of the Provider to the PRPA have been fully discharged. If a true copy of this Guaranty (and of the truth of the copy an affidavit thereof by the PRPA shall be sufficient evidence) shall be filed in any such suit, action or actions, it shall not be necessary to file the original as a warrant of attorney, any rule of court, custom or practice to the contrary notwithstanding.

8. All rights and remedies of the PRPA under this Guaranty, the Contract or by law are separate and cumulative, and the exercise of one shall not limit or prejudice the exercise of any other such rights or remedies. The enumeration in this Guaranty of any waivers or consents by Guarantor shall not be deemed exclusive of any additional waivers or consents by Guarantor which may be deemed to exist in law or equity. No delay or omission by the PRPA in exercising any such right or remedy shall operate as a waiver thereof. No waiver of any right and remedies hereunder, and no modification or amendment of this Guaranty shall be deemed made by the PRPA or the Guarantor unless in writing and duly signed by the party against which enforcement is being sought. Any such written waiver shall apply only to the particular instance specified therein and shall not impair the further exercise of such right or remedy or of any right or remedy of the PRPA, and no single or partial exercise of any right or remedy under this Guaranty shall preclude any other or further exercise thereof or any other rights or remedy. This Guaranty shall apply to the Provider's obligations pursuant to any extension, renewal, amendment, modification and supplement of or to the Contract provided for in the original and supplement of or to the Contract provided for in the original provisions of the Contract or otherwise agreed to in writing by the PRPA and the Provider, as well as to the Provider's obligations thereunder in accordance with the original provisions of the Contract.

9. This Guaranty shall be binding upon Guarantor, and Guarantor's administrators, successors and assigns, and shall inure to the benefit of the PRPA and its successors and assigns.

10. Guarantor will deliver to the PRPA, within one hundred twenty (120) days after the end of each fiscal year of Guarantor, a current statement of financial condition of Guarantor as prepared by an independent certified public accountant.

11. Guarantor will not sell, transfer or otherwise dispose of all or a substantial part of its assets to, or consolidate with, or merge into, any person or entity (except a wholly

owned subsidiary of Guarantor) or permit any other person or entity (except a wholly owned subsidiary of Guarantor) to merge into Guarantor, unless:

A. Such successor shall expressly assume in writing the due and punctual performance and observance of all of the terms, covenants and conditions of this Guaranty to be performed or observed by the Guarantor to the same extent as if such successor had originally executed this Guaranty; and

B. Immediately after such consolidation, merger, sale, lease or other disposition the Guarantor or such successor, as the case may be, shall not be in default in the performance or observance of any of the terms, covenants or conditions of this Guaranty, and immediately following such consolidation, merger, sale, lease or other disposition, such successor shall have a financial condition which is not materially inferior to the financial condition of Guarantor immediately prior to such consolidation, merger, sale, lease or other disposition.

12. In the event Guarantor consists of more than one person, firm or corporation, the obligations and liabilities hereunder of such persons, firms and corporations shall be joint and several, and the word "Guarantor" shall mean all or some or any of them.

13. If any provision of this Guaranty is held to be invalid or unenforceable by a court of competent jurisdiction, the other provisions of this Guaranty shall remain in full force and effect and shall be liberally construed in favor of the PRPA, in order to effect the provisions of this Guaranty.

14. Guarantor agrees that this Guaranty shall be governed by and construed according to the laws of the Commonwealth of Pennsylvania regardless of where the residence or domicile of Guarantor is now or may hereafter be located.

15. The undersigned does hereby consent that any such action or proceeding against it may be commenced in any court of competent jurisdiction and proper venue within the Commonwealth of Pennsylvania.

IN WITNESS WHEREOF, Guarantor, intending to be legally bound hereby, has caused this Guaranty to be executed by its duly authorized officers and has caused its corporate seal to be hereunto affixed, and duly attested, as of the date first above written.

ATTEST:

STEVEDORING SERVICES OF AMERICA, INC.

Name:

Title:

BY: _____

Name:

Title:

EXHIBIT "E"

INVENTORY OF CRANE PARTS

[DOCUMENT PREVIOUSLY SUPPLIED BY PRPA TO DRS]

EXHIBIT "F"

OBLIGATIONS WHICH ARE NOT ASSUMED BY DRS

In the Nonexclusive License Agreement between PRPA and Crowley American Transport, Inc., dated February 9, 1995, the obligations of PRPA which DRS shall not assume are:

- 5.2 PRPA's obligation to provide funding for capital improvements listed in Exhibit "C".
- 8.1 PRPA's obligation to maintain the structural integrity of the buildings and structures, including wharf structures at the premises as described in Exhibit "D".
- 8.6 PRPA's obligation to dredge.
- 11.7 PRPA's obligations and liabilities under that Section.
- 14.1 PRPA's obligation to pay "drayage".

In the Lease Agreement between PRPA and Tioga Fruit Terminal, Inc., dated November 21, 1997, the obligations of PRPA which DRS shall not assume are:

- 6.2 PRPA's obligation to maintain the wharf structure, the roofs, structural elements of the walls and foundations of the buildings forming part of the Premises.
- 6.7 PRPA's obligation to dredge.

EXHIBIT "G"

LOAD LIMITS

In general, the load limit on the paving at Tioga Terminal is 1000 psf. The maximum allowable concentrated stationary load is 50,000 psf. =

Note that Tioga III Building was built over a City of Philadelphia sewer. The sewer location is striped on the floor of the shed, and the load limit within the striping is 500 psf.

EXHIBIT "H"

GUIDELINES REGARDING EXPLOSIVES

[DOCUMENT PREVIOUSLY SUPPLIED BY PRPA TO DRS]

EXHIBIT "I"

EMPLOYMENT PRACTICES REQUIREMENTS

During the Term of this Agreement, DRS agrees as follows:

1. DRS shall not discriminate against any employee, applicant for employment, independent contractor, or any other person because of race, color, religious creed, ancestry, national origin, age, sex or handicap. DRS shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, age, sex or handicap. Such affirmative action shall include, but is not limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training. DRS shall post in conspicuous places, available to employees, agents, applicants for employment and other persons, a notice setting forth the provisions of this nondiscrimination clause.

2. DRS shall in advertisements or requests for employment placed by it or on its behalf, state that all qualified applicants will receive consideration for employment without regard to race, color, religious creed, ancestry, national origin, age, sex or handicap.

3. DRS shall send each labor union or workers' representative with which it has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representative of its commitment to this nondiscrimination clause. Similar notice shall be sent to every other source of recruitment regularly utilized by DRS.

4. It shall be no defense to a finding of a noncompliance with Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission or this nondiscrimination clause that DRS had delegated some of its employment practices to any union, training program, or other source of recruitment which prevents it from meeting its obligations. However, if this evidence indicates that DRS was not on notice of the third-party discrimination or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.

5. Where the practices of a union or any training program or other source of recruitment will result in the exclusion of minority group persons, so that DRS will be unable to meet its obligations under the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission or this nondiscrimination clause, DRS shall then employ and fill vacancies through other nondiscriminatory employment practices.

6. DRS shall comply with the Contract Compliance Regulations of the Pennsylvania Human Relations Commission, 16 Pa. Code Chapter 49, and with all laws prohibiting discrimination in hiring or employment opportunities. In the event of DRS' noncompliance with the nondiscrimination clause of this Agreement or with any such laws, this Agreement may, after hearing and adjudication, be terminated or suspended, in whole or in part, and DRS may be declared temporarily ineligible for further Commonwealth contracts, and such other sanctions may be imposed and remedies invoked as provided by the Contract Compliance Regulations.

7. DRS shall furnish all necessary employment documents and records to, and permit access to its books, records and accounts by, PRPA and the Human Relations Commission, for purposes of investigation to ascertain compliance with the provisions of the Contract Compliance Regulations, pursuant to §49.35 (relating to information concerning compliance by contractors). If DRS does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting agency or the Commission.

8. In the event DRS seeks to sublease the Premises, DRS shall actively recruit minority sublessees or sublessees with substantial minority representation among their employees.

9. DRS shall include the provisions of this nondiscrimination clause in any sublease of the Premises, so that such provisions will be binding upon each sublessee.

10. The terms used in this nondiscrimination clause shall have the same meaning as in the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission, 16 Pa. Code Chapter 49.

11. DRS' obligations under this clause are limited to the Premises.

EXHIBIT "J"

DRS INTEGRITY PROVISIONS

1. Definitions

a. "Confidential" means information that is not public knowledge, or available to the public upon request, disclosure of which would give an unfair, unethical, or illegal advantage to another desiring to contract with PRPA.

b. "Consent" means written permission by a duly authorized officer or employee of PRPA provided that where the material facts have been disclosed, in writing, by prequalifications, bid, proposal, or contractual terms, PRPA shall be deemed to have consented by virtue of execution of this Agreement.

c. "Financial interest" means:

(1) ownership of more than a 5% interest in any business; or

(2) holding a position as an officer, director, trustee, partner, employee, or the like, or holding any position of management.

d. "Gratuity" means any payment of more than nominal monetary value in the form of cash, travel, entertainment, gifts, meals, lodging, loans, subscription, advances, deposits of money, services, employment of contracts of any kind.

e. "DRS" means the individual or entity that has entered into this Agreement with PRPA, including directors, officers, partners, managers, key employees, and owners of more than a 5% interest.

2. DRS shall maintain the highest standards of integrity in the performance of this Agreement and shall take no action in violation of state or federal laws, regulations, or other requirements that govern contracting with the Commonwealth of Pennsylvania (the "Commonwealth") or PRPA.

3. DRS shall not disclose to others any confidential information gained by virtue of this Agreement.

4. DRS shall not, in connection with this or any other agreement with PRPA or the Commonwealth, directly or indirectly, offer, confer, or agree to confer, any pecuniary benefit on anyone as consideration for the decision, opinion, recommendation, vote, other exercise of discretion, or violation of a known legal duty by any officer or employee of PRPA or the Commonwealth.

5. DRS shall not, in connection with this or any other agreement with PRPA or the Commonwealth, directly or indirectly, offer, give, or agree or promise to give to anyone any gratuity for the benefit of or at the direction or request of any officer or employee of PRPA or the Commonwealth.

6. Except with the consent of PRPA, neither any sublessee or anyone in privity with said sublessee shall accept or agree to accept from, or give or agree to give to, any person, any gratuity from any person in connection with the performance of obligations under this Agreement except as provided therein.

7. Except for agreements in which PRPA and DRS are named parties, DRS shall not have a financial interest in any contractor, subcontractor, or supplier providing services, labor, or material on any port-related project conducted by PRPA unless consent therefor is granted by PRPA.

8. DRS, upon being informed that any violation of these provisions has occurred or may occur, shall immediately notify PRPA in writing.

9. DRS, by execution of this Agreement, certifies and represents that he has not violated any of these provisions.

10. DRS shall, upon request of PRPA, reasonably and promptly make available to PRPA, for inspection and copying, all business and financial records of DRS of, concerning, and referring to this Agreement with PRPA, or which are otherwise relevant to the enforcement of these provisions.

11. For violation of any of the above provisions, PRPA may terminate this and any other agreement with DRS, claim liquidated damages in an amount equal to the value of anything received in breach of these provisions, claim damages for all expenses incurred in obtaining another DRS to complete performance hereunder, and debar and suspend DRS from doing business with PRPA. These rights and remedies are cumulative, and the use or nonuse of any one shall not preclude the use of all or any other. These rights and remedies are in addition to those PRPA and/or the Commonwealth may have under law, statute, regulation or otherwise.

ea.	Solder Iron, 25 watt		\$8.52
	Steel Service Cart		\$55.90
ea.	Step Ladder, 4ft.		
ea.	Step-Van (Chevy) 1966	P2526T154137	\$2800.00
ea.	Tap & Dye Set: American 1/4-1/2 SAE & Standard		\$89.00
	Metric M7-M16		\$97.00
ea.	Ty Wrap Gun (Thoams & Betts)	5A308	\$15
ea.	Trolley, 2-ton		\$151.09
ea.	Two-Way Radios (Motorola Maxtrac)		
		#428FPF4898B (K-1)	\$495.00 ea.
		#428FPE8220B (K-4)	
a.	Walkie-Talkies (Motorola HT600)	#649ANY2537	\$800.00 ea.
		#649ANY2539	
		#649ANY2540	
		#649ANY2542	
		#649ANY2543	
a.	Welding Machine (Miller Trailblazer)	250G/JJ475212	\$278.00
a.	Welding Helmet		\$35.00
a.	Wet/dry Vac-16 gl. (Tornado)	56398CO4904	\$1457.00



Philadelphia Regional
Port Authority

PHILADELPHIA REGIONAL PORT AUTHORITY
CONTAINER GANTRY CRANES MANUAL

PREPARED BY: OPERATIONS DEPARTMENT-
PHILADELPHIA REGIONAL PORT AUTHORITY

EFFECTIVE NOVEMBER 1, 1992



Philadelphia Regional
Port Authority

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SECTION ONE

GENERAL CRANE MAINTENANCE AND REPAIR POLICY

SECTION ONE:

GENERAL CRANE MAINTENANCE AND REPAIR



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Port Authority

It is the policy of the Philadelphia Regional Port Authority ("PRPA") that only structurally and integrally sound equipment, properly inspected, will be utilized.

1. PURPOSE AND SCOPE

- 1.1 The purpose of this procedure and all procedures in this manual is to establish minimum norms and standards for maintenance and repair of gantry container cranes.
- 1.2 This policy and all procedures contained in this crane maintenance and repair manual shall apply to all cranes under the control and/or maintenance of PRPA.

2. GENERAL

- 2.1 The standard set by PRPA is that all equipment shall be maintained according to the procedures and schedules as delineated in the original equipment manufacturer's (OEM) maintenance manuals.
- 2.2 Requirements to meet regulatory inspection criteria, as specified in OSHA Regulations CFR Part VI Chapter XXII 1917 shall be supplementary to this standard.

3. STANDARDS

No modifications, additions, deletions or changes of any kind shall be made to any crane or system within a crane, nor shall any procedure be changed without the prior approval of PRPA's Operations Department.

- 3.1 Any proposed change shall be submitted in full detail with reasons and anticipated cost effectiveness for consideration and evaluation by PRPA.
- 3.2 Approved changes will be issued as modifications and will then become part of this manual.

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- 3.3 Each manufacturer of the diverse equipment in use on the container gantry crane within PRPA facilities has provided operation and maintenance manuals for that equipment and its components and systems. These manuals are hereby each made a part of this standard. Each terminal employing container gantry cranes must maintain a permanent file containing these manuals and any required or ancillary drawings.
- 3.4 Only those products or materials that have been approved or recommended by the various manufacturers shall be used. Substitute products must be approved by PRPA's Operations Department prior to their use.
- 3.5 Maintenance and repair of cranes shall be performed under the direction of the crane maintenance supervisor, who shall be qualified in all aspects to coordinate and direct the maintenance and repair of the cranes. All work shall be performed in a professional and workmanlike manner and only by those persons qualified and approved by PRPA to perform the function.
- 3.6 Any work, repairs or modifications performed shall comply with all existing industry, national and local codes.

4. CRANE DOWN-TIME

DEFINITION: CRANE-DOWN TIME SHALL BE CONSIDERED TO BE THAT PERIOD OF TIME DURING WHICH A CARGO OPERATION IS HALTED OR DELAYED FROM A SCHEDULED START DUE TO A MALFUNCTION OF THE CRANE. A MALFUNCTION SHALL BE CONSIDERED AS ANY FAILURE OF THE MACHINE THAT REASONABLY FALLS UNDER THE SCOPE AND CONTROL OF THE CRANE MAINTENANCE DEPARTMENT. DETENTION DUE TO THE LATE ARRIVAL OF THE VESSEL OR SHORT GANGS IS NOT CONSIDERED DOWN-TIME.

- 4.1 Work stoppages that occur due to operator abuse, shipboard problems, damaged containers, etc. shall be noted on the Container Crane Operation Log (example on Page 23) but not included in the down time hour total.
- 4.2 For each period of down-time, a Down-Time Report (example on Page 21) shall be completed. These shall be submitted to the appropriate PRPA Operations Field Representative with the Container Crane Operation Log on a monthly basis.

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5. WIND AND STORM

There have been a number of cases in which cranes in other ports have suffered severe accidents due to storm. Most of these could have been avoided, if only sufficient attention had been paid to weather forecasts and all accident prevention measures were taken.

Wind Procedures are to comply with OSHA requirements in Section 1917.45, effective October 3, 1983.

- 5.1 Each terminal shall establish a wind warning speed and wind shut-down speed. These speeds shall comply with, but not to exceed, the recommended manufacturer's guidelines.
- 5.2 Each terminal shall publish in writing those procedures that are to be taken in the event of wind conditions above normal guidelines. A copy of said procedures shall be conspicuously posted in the operator's cab of each crane. A copy of these procedures shall be forwarded to PRPA's Operations Department for approval.
- 5.3 Above procedures shall include, but not be limited to, the following:
 - 5.3.1 When wind reaches warning speed:
 - a. Preparations shall be made for crane shut-down.
 - 5.3.2 When wind reaches shut-down speed:
 - a. Install anchoring pins and tie downs.
 - b. Any portion of the crane spanning a vessel shall be moved clear if safe to do so.
 - c. Hoist spreader with no load to upper limit.
 - d. Provide emergency back-up procedures and tie-downs in the event the crane cannot be returned to tie-down area.



- 5.4 Each crane shall be equipped with a wind monitoring system that automatically provides a visual and/or audio alarm to alert the operator that wind warning and shut-down velocities are being approached.
- 5.5 Each crane maintenance department shall have at least one weather alert radio, constantly monitored, to receive emergency weather bulletins.

6. WIRE ROPE

- 6.1 All wire rope installed must be accompanied by manufacturer's certificates. These certificates shall include wire rope class, size, reel number and break point of the tested sample. This breaking point must equal or exceed that which is required by the crane manufacturer.
- 6.2 Rope certificates will be kept on file by the local PRPA Operations Field Representative. These should be clearly marked to indicate date installed and date removed from service. On those cranes equipped with hour-run meters, these times shall also be noted on the certificates.
- 6.3 Wire rope shall be inspected monthly. A local log shall be kept to indicate condition, rope diameter, number of broken strands or any significant changes that may effect the usefulness of the rope.

7. CRANE OPERATORS

- 7.1 Only those persons duly authorized shall be permitted to operate the crane.
- 7.2 Requirements
 - 7.2.1 Only persons meeting the following requirements are allowed to operate the crane:
 - a. Operators shall be free of any physical or mental deficiency that would prevent safe operation of the crane.



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SECTION TWO

CRANE INSPECTION REQUIREMENTS

SECTION TWO:



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1. PURPOSE AND SCOPE

- 1.1 The purpose of this procedure is to detail the various inspections that compose a sound inspection program and what must be accomplished in each.
- 1.2 This procedure applies to all PRPA waterfront facilities.

2. GENERAL

- 2.1 Inspections generally fall into three categories, namely: general condition inspections, repair or operation verification inspections, and special inspections--mainly dictated by regulatory requirements.
- 2.2 The inspections, detailed in Part Three, are to be integrated into each terminal as appropriate, in order to control equipment condition and to limit PRPA's exposure to personal, cargo and equipment claims action.
- 2.3 This procedure is to be supplemented by PRPA's Operations Field Representative specifically outlining which inspections are to be performed and when.

3. GENERAL CONDITION INSPECTIONS

As required by OSHA Standard CFR Part VI Chapter XXII 1917.45[K].

- 3.1 General condition inspections serve the purpose of verifying that equipment is sound and/or determining if some corrective measures are required. The following inspections fall into this category:

3.2 Pre-Operational Inspections

- 3.2.1 Pre-operational inspections are to determine if the crane is in suitable operating condition to properly and safely function during a vessel loading and discharge operation. This inspection entails a quantity check of necessary fluids, functional check of power and motor units, brakes and safety devices, and an operational check of moving and hoisting components.

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3.2.2 A pre-operational inspection will be made prior to each vessel's loading and discharge operation.

3.2.3 Items to be included in a pre-operational check are listed on the report form "PRE-OPERATIONS REPORT", (example on Page 19).

3.3 Visual Inspections

3.3.1 Visual inspections are to determine the physical integrity of the crane for supporting the loads and accompanying stresses imposed by operations.

3.3.2 Visual inspections are to be performed monthly.

3.3.3 Visual inspections shall include, but not be limited to, the following:

- a. Physically sighting steel members for buckling, cracking, corrosion or other signs of distress.
- b. Examining joints for cracked welds or pins, loose or deteriorated bolts.
- c. Checking wire rope for kinks, strand breaks, wear or stretch.
- d. Examining glass windows for breakage.
- e. Twistlocks for any signs of fatigue.
- f. Electric cables, including festoon systems, for damage or wear.

3.3.4 Results of visual inspections are to be entered in a log kept at the terminal.

3.4 Semi-Annual Inspection

3.4.1 Semi-annual inspections are to be performed in conjunction with the monthly inspection every sixth month. This inspection goes into more depth in establishing the overall condition of the crane.

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3.4.2 In addition to items covered in the monthly inspection, the semi-annual inspection shall include inspection of:

- a. Wheels, wheel flanges, sheaves and drums for cracks, wear and flat spots.
- b. Rails for looseness or wear.
- c. Pins and axles for alignment, loose keys and bolts.
- d. Gears for chips, wear, pitting, spalling.
- e. Brake linings, linkage and drums for wear.
- f. Hydraulic lines for leakage or damage.
- g. Twistlocks shall be removed and sent for Non-Destructive Testing. A spare set, which shall have been tested, shall be substituted to reduce crane service time.
- h. Power collectors and conductors shall be inspected for wear, damage and tightness, contactors for pitting.
- i. As far as practical, interiors of girders, legs and other structural members shall be inspected for cracks, rust and condensation.
- j. Condition of painted surfaces shall be noted for damage, cracks or rust.
- k. Oil samples shall be taken for analysis.

3.4.3 Reports of the semi-annual inspection shall be kept at the terminal with a copy sent to PRPA's Operations Department.

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3.5 Annual Inspection

- 3.5.1 Annual inspections incorporate all of the previously noted inspections and are required by federal law to be performed by an accredited Department of Labor Inspector.
- 3.5.2 Refer to Section Four for future requirements for regulatory inspections.
- 3.5.3 Reports of annual inspections shall be forwarded to PRPA's Operations Department.

REGULATORY REQUIRED INSPECTIONS

4.1 Regulatory Agencies

- 4.1.1 The federal government has laws regulating the construction, use and inspection of container gantry cranes. These regulations are hereby made a part of this manual.
- 4.1.2 Pennsylvania and Philadelphia have regulations pertaining to cranes. These regulations are hereby made a part of this manual.
- 4.1.3 Where multiple regulations are in effect, most governing bodies will accept one inspection, usually the more stringent specification to ensure compliance with all laws.

4.2 U.S. Department of Labor Regulations

- 4.2.1 These regulations are promulgated under the Occupational Safety & Health Administration (OSHA) Standards in the Code of Federal Regulations, Part VI, titled "Marine Terminals, Final Rule" effective October 3, 1983, Chapter XVII, 1917.50.

Exhibit K

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Exhibit F

Exhibit G

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4.2.2 NOTE: OSHA INSPECTIONS SHALL BE SCHEDULED IN CONJUNCTION WITH PRPA'S OPERATIONS DEPARTMENT SO THAT A DEPARTMENT REPRESENTATIVE MAY PARTICIPATE. THE NAME OF THE INTENDED INSPECTOR OR FIRM SHALL BE SUBMITTED TO THE OPERATIONS DEPARTMENT FOR APPROVAL.

4.2.3 The main requirements of the OSHA regulations are that an accredited inspector:

- a. Annually inspect the crane visually for structural integrity, fitness of wire ropes and running gear, operation of all brakes and safety devices;
- b. Quadrennially proof-load test the crane and lifting devices (spreaders) at 125 percent of rated safe working load;
- c. Proof-load test and visually inspect after major repairs or alterations;
- d. Issue the appropriate certificates after each test or inspection for posting in the crane cab.

4.2.4 The intent of these regulations is to ensure a safe working environment. Following the aforementioned PRPA policy, all cranes should be maintained to OSHA standards at all times.

4.2.5 To assure compliance with OSHA Regulations:

- a. Current inspection certificates shall be displayed in a protective holder in each crane cab.
- b. Test certificates shall be obtained from the manufacturer for any wire rope installed on cranes and kept on file in PRPA's Operations Department identifying the rope and date installed.

- Section Two:
Crane Inspection
Requirements
Part Four



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- c. Crane serial number and rated capacity shall be prominently displayed in the operators cab and on the crane sill beam.
- d. Each spreader shall be identified and shall have its safe working load shown in a prominent location.

4.2.6 Copies of the OSHA inspection reports and certificates are to be filed with PRPA's Operations Field Representative and Operations Department.

5. REPAIR OR OPERATION VERIFICATION INSPECTIONS

5.1 Initial Repair Inspection

5.1.1 The initial repair inspection is to determine what specific repair and/or maintenance tasks are to be performed on a particular component on the crane. The results of the inspection are used to (1) schedule work load, (2) determine parts requirements, (3) ensure all required work is accomplished in the time frame allotted, and (4) provide a record of work.

5.1.2 This inspection will be performed for any major repair and can be extended to minor repairs to assist in planning and monitoring work.

5.1.3 Results of this inspection are to be recorded on the Major Repair Report (example on Page 21).

5.2 In-Process Repair Inspection

5.2.1 In-process repair inspections are to be conducted on a sampling basis to ensure repairs are being accomplished correctly.

5.2.2 No form is used for this inspection.



5.3 Final Repair Inspection

- 5.3.1 Final repair inspections are used to determine that all required repairs have been accomplished in a proper manner.
- 5.3.2 Final inspection will be performed on all components having undergone repair and will include checks for completeness, soundness and proper operation if applicable.
- 5.3.3 Certain repairs will require a reinspection by federal inspectors under Dept. of Labor regulations before a crane may be returned to service. Refer to Part Four (Page 9) of this section for requirements.

6. SPECIAL INSPECTIONS

- 6.1 Special inspections are for a particular investigation of a specific facet or component of a crane. They are over and above regular inspections even though they might be on a scheduled basis.
 - 6.1.1 Non-destructive test (NDT) inspections will be specified for establishing the integrity of a member or a weld when there is reason to suspect internal flaws or fatigue or to verify the soundness of a repair. These inspections will entail the use of dye penetrants, ultrasonic or fluoroscopic devices, X-rays or other procedures and will normally require the services of a competent technical testing laboratory.
 - 6.1.2 Operational inspections on machinery and equipment by qualified experts, usually manufacturers' technical representatives may be required to establish their condition and conformity with specifications.
- 6.2 Special inspections of whatever nature will be scheduled as needed after joint determination by the terminal operator and PRPA's Operations Department. These inspections may require use of outside services. The crane maintenance department will provide aid and assistance to facilitate these inspections.

- Section Two:
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6.3 Reports of the results of special inspections shall be submitted with an additional copy to PRPA's Operations Field Representative so evaluation may be made toward modifying or amending maintenance procedures.



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EXHIBIT A



Exhibit F

Exhibit G

Exhibit H

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SECTION THREE

MAINTENANCE & REPAIR RECORDS AND REPORTING



3.1 Crane Maintenance Work Order (Deleted)

3.2 Pre-Operations Report (OSHA Requirement 1917.45[K])

The Pre-operations Report (example on Page 19) is for recording activity surrounding a ship operation, the pre-operational inspection, the operation, and the post-operational securing. The following data is to be recorded:

- 3.2.1 Terminal location.
- 3.2.2 Vessel name.
- 3.2.3 Date of operation.
- 3.2.4 Crane identification.
- 3.2.5 Crane hour meter readings at start and finish.
- 3.2.6 Pre-operational inspection check list.
- 3.2.7 Post-operational securing of crane check list.

3.3 Down-Time Report

The Down-Time Report (example on Page 20) is to be completed to report any stoppage of operations for a crane-related cause, whether it be a crane malfunction or damage to the crane. The report is to include the following information:

- 3.3.1 Terminal location.
- 3.3.2 Crane identification.
- 3.3.3 Date.
- 3.3.4 Vessel.
- 3.3.5 Name of person(s) who reported problem to crane maintenance department, e.g. operator, pier superintendent.

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- 3.3.6 Time that the report was received by the crane maintenance department.
- 3.3.7 Description of problem by person(s) reporting it.
- 3.3.8 Initial diagnosis by crane maintenance department based on report received and first inspection.
- 3.3.9 Corrective action taken by crane maintenance department.
- 3.3.10 Parts and material used.
- 3.3.11 Manhours expended.
- 3.3.12 Time crane returned to service.
- 3.3.13 Remarks by mechanic(s) - include opinion as to cause and suggest ways to prevent recurrence.
- 3.3.14 Mechanic's signature.
- 3.3.15 Remarks by crane maintenance supervisor to clarify description of problem or correction thereof, including opinion as to cause and prevention.
- 3.3.16 Signature of Crane Maintenance Supervisor.

3.4 Major Repair Report

The Major Repair Report (example of Page 21) is to be used to record repairs or replacements of a magnitude that requires removal of the crane from service or requires more than one day to complete. The following information is to be included:

- 3.4.1 Terminal Location.
- 3.4.2 Crane Identification.
- 3.4.3 Date Project initiated.
- 3.4.4 Report number - terminal file number (sequentially numbered).

- Section Three:
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- 3.4.5 Reason for repair - if damage or failure occurred during operations, refer to the Down Time Report, otherwise state reason for project, e.g. 5,000 hour overhaul, cracked weld discovered during inspection, etc.
- 3.4.6 Cause, if not normally programmed maintenance, e.g. struck by vessel or vehicle, corrosion, etc.
- 3.4.7 Repairs performed.
- 3.4.8 Manhours expended.
- 3.4.9 Materials and parts used.
- 3.4.10 Outside services utilized, e.g. machine shop, contract labor, testing lab.
- 3.4.11 Date available for service.
- 3.4.12 Total cost of project.
- 3.4.13 Remarks to include opinions as to cause and prevention.
- 3.4.14 History of previous occurrence.
- 3.4.15 Signatures of mechanic and/or supervisor.

3.5 Container Crane Operation Log

The Container Crane Operation Log (example on Page 22) is to be used to record the crane's cargo working hours. Each crane shall be monitored individually and the following information is to be included:

- 3.5.1 Date/time - beginning and end of vessel operation.
- 3.5.2 Crane identification.
- 3.5.3 Terminal (location).
- 3.5.4 Hour meter readings at beginning and end of operation.

- Section Three:
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- 3.5.5 Date of shipboard operations, times, work
stoppage, name of vessel worked.
- 3.5.6 Total hours for month (running log).
- 3.5.7 Year-to-date total hours (total operation
hours plus previous grand total).

CRANE NO. : _____
DAILY MAINTENANCE REF. TERMINAL: _____

DATE	DESCRIPTION	MECHANIC	HRS.	MATERIAL
N.				
N.				
S.				
.				
IR.				
.				
.				



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DOWN TIME REPORT

Crane No. _____ Terminal _____ Vessel _____
Date _____ Time _____

Reported By _____

Reported As: _____

Initial Diagnosis: _____

Corrective Action: _____

Crane Used: _____

Crane Used: _____

Returned To Service: _____

Remarks: _____

Supervisor Remarks: _____

Mechanic/Shift

Crane Supervisor

SECTION FOUR

RECORDS & REPORTS - PREVENTIVE MAINTENANCE (PM)

SECTION FOUR -

RECORDS & REPORTS - PREVENTIVE MAINTENANCE (PM)



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1. Purpose & Scope

- 1.1 The purpose of this procedure is to provide information on the condition of the container gantry cranes at each terminal under PRPA's jurisdiction.
- 1.2 This procedure is applicable to all crane maintenance and repair activity on all cranes under PRPA's control, whether owned or leased and whether maintained by PRPA forces or contractor.

2. General

- 2.1 Input to the system is largely based on information generated by the General Crane Maintenance and Repair Section (Section One) and recorded and reported on standard forms noted herein in a timely manner.

3. Procedure

- 3.1 The terminal operator and/or PRPA Operations Department shall establish a fixed maintenance schedule based on the manufacturers' recommendation. These schedules shall be based on either a fixed time interval or on equipment usage by hour.
- 3.2 The various report forms are self-explanatory and inspections shall be performed as noted on each of the inspection reports. All reports shall be completed by the Crane Maintenance Supervisor or appropriate PRPA Operations Department personnel, unless otherwise directed by supervisory personnel.

4. Reporting

Copies of all reports are to be forwarded to PRPA's Operations Field Representative on the following schedule:

- 4.1 Daily Maintenance Reports - Weekly.
- 4.2 Pre-operations Reports - Weekly.
- 4.3 Down Time Reports - Monthly, with the Container Crane Operations Log or when determination is made that crane will be out of service pending major repairs.

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Records & Reports -
Preventive Maintenance (PM)
- Part Four



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4.4 Major Repair Reports - Upon completion of repairs.

4.4.1 This form may be used to detail contemplated repairs before the fact and then should be marked "Preliminary".

4.5 Preventive Maintenance Forms - Monthly.

4.6 Container Crane Operation Log - Monthly.

5. Report Forms

5.1 Container Crane Check-off List - Weekly (optional use with no vessel activity during week).

5.2 Container Crane Check-off List - Monthly.

5.3 Container Crane Check-off List - Quarterly.

5.4 Container Crane Check-off List - Annually (in concert with OSHA inspections).

5.5 Motor Speed & Load Check.

CONTAINER CRANE CHECK-OFF LIST (MONTHLY)



Page I.D. No. _____

Date Checked _____

Checked By _____

- LUBRICATE-**
- L1 Lubricate Sheaves A Frame
 - L2 Lubricate Latches A Frame
 - L3 Lubricate Stop Limit Switches
 - L4 Lubricate Plungers
 - L5 Lubricate Hydraulic Unit for Latches
 - L6 Lubricate L1 Sheaves
 - L7 Lubricate Forestays
 - L8 Lubricate Flange Pins
 - L9 Lubricate L1 Pillow Blocks
 - L10 Lubricate Roller Rollers
 - L11 Lubricate Rollers on Trolley
 - L12 Lubricate Cable Trolley to Spreader
 - L13 Lubricate Open Gearing
- ELECTRICAL-**
- E1 Check Electrical Contacts for Wear
 - E2 Check Control Panel for Loose Connections
 - E3 Check Brake Adjustment
 - E4 Check Operator Cab for Loose Connections

COMMENTS:

- GENERATOR INSPECTION-**
- G1 Check each listed unit for the following:
 - G1.1 Electric motor/generator for grease leakage
 - G1.2 Brush length
 - G1.3 Commutators are smooth and even brownish color
 - G1.4 Insulation for cracks
 - G1.5 Connections are tight
 - G1.6 Temperature heaters are working
 - G1.7 Bolts are free of dust and dirt

WIRE STATUS IN EACH BLOCK-

	A	B	C	D	E	F	G
W1 Wrist Motor Left							
W2 Wrist Motor Right							
W3 Trolley Motor							
W4 Main Motor							
W5 Main Generator							
W6 Trolley Generator							
W7 Trolley Motors Number 1 thru 8							

- ROPE INSPECTION-**
- R1 Check all wire ropes for the following:
 - R1.1 Broken individual wires
 - R1.2 Bends and kinks
 - R1.3 Sufficient lubrication

WIRE STATUS IN EACH BLOCK-

	A	B	C
W1 Wrist Right			
W2 Wrist Left			
W3 Trolley			

INSPECTED BY: _____

REWORKED BY: _____

CONTAINER CRANE CHECK-OFF LIST (SEMI-ANNUAL)



U.S. No. _____

Date Checked _____

Checked By _____

BEARINGS-	
Hoist Drum Bearings	
Hoist Drive Shaft Bearing	
Hoist Motor Gear Bearings	
Hoist Motor Equalizing Pins	
Hoist Equalizing Pins	
Hoist Motor and Shaft Couplings	
HOIST OIL LEVELS-	
Hoist Motor Gear Reducer Left	
Hoist Motor Gear Reducer Right	
Hoist Gear Reducers	
Hoist Gear Reducer	
Hoist Gear Reducer	
Hoist Drum Brake	
ELECTRICAL/VISUAL CHECKS-	
Inspection of Resistor Connections on Top of Control Cabinets	
Inspection of Connections on Load Resistors	
Inspection of Boom Stepping Resistors	
Hoist Motor Speed Load Test	



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SECTION FIVE

TERMINOLOGY AND DEFINITIONS

Exhibit K

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MOTOR SPEED AND LOAD CHECK

D. No. _____ Date Checked _____ Checked By _____

HOIST 40 FT-	MOTOR R.P.M.	HOIST MOTOR VOLTAGE	HOIST MOTOR AMPERES	GEN FIELD VOLTS	MOTOR FIELD AMPERES
Load					
o Load					
oad					
/Load					

HOIST RIGHT 20 FT-	MOTOR R.P.M.	HOIST MOTOR VOLTAGE	HOIST MOTOR AMPERES	GEN FIELD VOLTS	MOTOR FIELD AMPERES
Load					
o Load					
oad					
/Load					

HOIST LEFT 20 FT-	MOTOR R.P.M.	HOIST MOTOR VOLTAGE	HOIST MOTOR AMPERES	GEN FIELD VOLTS	MOTOR FIELD AMPERES
Load					
o Load					
oad					
/Load					

Hoist-	MOTOR R.P.M.	MOTOR VOLTAGE	MOTOR AMPERES	TIME CYCLE

EY-	MOTOR R.P.M.	MOTOR VOLTAGE	MOTOR AMPERES	MOTOR FIELD AMPERES	GEN FIELD VOLTS
d					
e					

Y-	MOTOR R.P.M.	LOOP AMPERES	1 THRU 4 AMPERES	5 THRU 8 AMPERES

Date _____

EXHIBIT N

Exhibit F

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Exhibit H

SECTION FIVE -

TERMINOLOGY AND DEFINITIONS



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1. Abalone Cable Colloquialism referring to flexible multi-conductor electric cable connecting spreader to trolley. (See Baloney and Umbilical)
2. A Frame Upper portion of crane main structure with legs slanting inward.
3. Aircraft Warning Light Red lights on uppermost portion of crane and the end of the boom when in the raised position (to meet FAA Regulation).
4. Anemometer Wind velocity indicator.
5. Anti-Sway A device to mechanically dampen the pendulum effect of trolleying spreader.
6. Articulated Boom Boom that is hinged in middle, and folds on raising to reduce overall height. Used in proximity of air fields.
7. Backreach Portion of boom which is inshore of main crane structure.
8. Backstays Diagonal guys tying backreach to Σ frame. Can be cable or steel members.
9. Baloney Cable See Abalone.
10. Basket A cylindrical tube and frame to use to collect and store the power cable (abalone, baloney, umbilical) as spreader is raised.
11. Boom Horizontal structure supporting the trolley rails.
12. Boom Hinge Pivot point for luffing boom.
13. Boom Hoist Mechanism for raising luffing boom consisting of motor reducing gears, drum, brakes, cables, sheaves.
14. Boom Latch Locking device used to hold boom in raised position.

- Section Five:
Terminology and
Definitions



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15. Boom Travel Horizontal distance moved in or out by shuttle booms.
16. Bumper Energy absorbing device to limit impact at end of travel. Used on trolley, gantry and shuttle booms.
17. Bus Bar Electric power feed rail. (See Collector Rail)
18. Cab Operators' compartment.
19. Collector Pick-up shoe for electric power, which slides along collector rail.
20. Collector Rail Electric power conductor bar for feeding through sliding contactor or shoe.
21. Current Limiting Overload protection by restricting the amperage on a motor.
22. Dead Stop Limit Mechanically actuated control to stop a motion at absolute maximum travel. Usually refers to upper hoist position.
23. Emergency Gear Individual units, usually wire rope, connected either to twist locks or padeyes used to handle containers that the spreader cannot connect to because of overheight, odd size or damage.
24. Emergency Stop Switch located at ground level, at the boom hoist station, and in the operator's cab, which shuts off all crane motions.
25. Equalizer Beam connecting two members to spread an imposed load between them; such as a corner load imposed on main equalizer, which connects two secondary equalizers each of which connects two gantry trucks, thus spreading the corner load over eight wheels.
26. E Stop Emergency Stop.

- Section Five:
Definitions



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27. Expandable Spreader that can be remotely controlled to adjust its size to handle from 20 foot to 40 foot containers.
28. Festoon A series of power cables used to feed a traveling unit, such as trolley or boom. It is connected at both ends with bights of cable carried between on a series of rolling hangers to prevent sag of cable when unit is in retracted position.
29. Fixed Beam Solid spreader frame of one size container. Must be changed to handle different size containers. Usually married to a quick-disconnect fixed head block.
30. Flipper Remotely controlled gathering arm to assist the positioning of a spreader on a container. Can be retracted for entry into the ship cell guides.
31. Forestay Support for luffing boom when the boom is in the lowered position. It connects the boom to the A frame. May be cable, bar or tube hinged to fold when boom is raised.
32. Gantry (a) The motion of travel of the entire crane along its track on the pier.
(b) The wheel and drive assembly producing such travel.
33. Gantry Brake The mechanical holding device to prevent motion of the gantry drive, usually on the motor.
34. Gantry Drive Motor and gear train transmitting power to the gantry wheels.
35. Gantry Truck A set of wheels and their carriage assembly supporting an equalizer beam, may be driven or non-driven (idler).

- Section Five:
Terminology and
Definitions



Philadelphia Regional
Port Authority

36. Gathering Arm Pivoted member which can be swung across underside of articulated boom to hold cables in place when boom is raised.
37. Generator or Alternator Power driven producer of electric current. Generator refers to direct current (DC) electricity; whereas, alternator refers to alternating current (AC) electricity.
38. Head Block Framework used to hold the main hoist sheaves which are connected to the spreader. Allows for the disconnecting of the spreader without disturbing sheave spacing and arrangement.
39. Heavy-Lift Hook Device hung from spreader or in place of the spreader with a hood for lifting slung loads.
40. Hoist Mechanical system engaged in lifting and lowering the load. It includes motor(s), gear reducer, drums, brakes, cables and sheaves.
41. Joy Stick Master control lever in operators' cab.
42. Jumper Temporary cable connecting two terminals bypassing an inoperative intermediate function. Jumpers are used during emergency situation while working on the equipment and for test purposes only.
43. Legs Main vertical frame members of crane.
44. Low Profile Designation of crane configuration maintaining minimal vertical elevation, usually of shuttle boom type.
45. Luffing Boom Boom configuration that is hinged at the main frame and is lifted to approximate vertical position for stowage.
46. Machine House Compartment housing the control panels, motors, generators, and, in some cranes, drums and engines.

Action Five:
Terminology and
Definitions



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Exhibit K

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EXHIBIT U

Exhibit F

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MG Set

Short for Motor Generator. Unit comprised of generator and its drive, either an electric motor or a fossil fuel engine.

Outreach

Extent of trolley travel outshore of wharf.

Portal Beam

Lower crossmember of crane structure (below the boom) transversed (at 90 degrees) to line of wharf, connecting landside leg to waterside leg.

Quadrant Gear

Segment of gear in the actuating drive for flippers.

Quick Disconnect
Head Block

Head block fitted with twist locks and snap plugs for electric and hydraulic lines providing for the rapid switching of spreaders.

SCR

Silicon controlled rectifier. Solid-state, semi conductor electronic component controlling current flow.

Secondary
Equalizer

Beam connecting main equalizer to the gantry trucks.

Sensor

Interlocking device, mechanical or electronic, used to prevent the hoisting of the spreader if the twistlock is not properly engaged in container.

Shore Power

Electric connection to power source on wharf to energize lights and heaters when crane is shut down.

Shuttle Boom

Boom structure that moves horizontally extending over berth or retracting into the backreach position to clear berth.

Sill Beam

Lower horizontal members on crane structure (below the boom) to line of wharf; one connecting both waterside legs, one connecting both landside legs.

- Section Five:
Terminology and
Definitions



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58. Slow Down Limit Electric switch causing reduction in speed of any motion as it approaches the end of travel.
59. Spreader Structure that is hung from hoist blocks with remotely controlled devices to engage container.
60. Stays Bracing supports for boom extensions. (See Forestay and Backstay).
61. Telescoping Spreader Same as Expandable.
62. Tie Down Device for locking the crane to the wharf to prevent movement in high winds. Most applications are heavy pins to prevent lateral movement. In hurricane or typhoon prone areas, additional devices in the form of turnbuckles and hooks are provided to prevent vertical movement.
63. Trolley (a) Wheeled carriage which travels along boom to position the main hoist wire ropes and spreader over the load.
(b) Motion of traversing along boom.
64. Trolley Drive Method of propelling trolley.
(a) Driven: self-propelled by motors and reduction gears on trolley.
(b) Towed (Rope Driven): moved by cables pulled from drums located and driven in the machine house.
65. Trolley Rail Rail on which the trolley wheels roll; the path of wheel travel for the trolley support on the boom structure.
66. Twist Lock ISO standard T-shaped pin machined to exact tolerances located at each corner of the spreader which penetrates the container corner casting, and is hydraulically turned 90 degrees to engage shoulders of casting, and lifts containers.

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Section Five:
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Exhibit K

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Umbilical Cord

Power cable to spreader (See Abalone).

Up-Stop Limit

Electric switch used to halt the hoisting of the spreader at predetermined safe position (See Dead Stop Limit).

Variac

Nomenclature for master control in operators' cab which controls multiple functions from one lever (Acronym for variable AC control device).

Wind Alarm

Audible signal actuated by anemometer at predetermined wind velocity indicating approach of unsafe operating condition requiring tie down of crane.

Wind Chock

Automatically setting mechanism that chocks the gantry drive wheels while crane is in the load and discharge operating position to prevent gantry movement in event of sudden gust exceeding gantry brake requirements.

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EXHIBIT "F"

LOAD LIMITS

In general, the load limit on the paving at Tioga Terminal is 1000 psf. The maximum allowable concentrated stationary load is 50,000 psf.

Note that Tioga III Building was built over a City of Philadelphia sewer. The sewer location is striped on the floor of the shed, and the load limit within the striping is 500 psf.

EXECUTION COPY

EXHIBIT "G"

GUIDELINES REGARDING EXPLOSIVES

[DOCUMENT PREVIOUSLY SUPPLIED BY PRPA TO DRS]

IV. STORAGE OF EXPLOSIVES -

In instances of emergency or unforeseen delay, permission may be obtained from the Philadelphia Fire Department to retain the explosives on the facility in a "safe haven" approved by the Philadelphia Fire Department. The storage of Class "A" and Class "B" explosives in quantities in excess of 50 lbs. net explosive content, and Class "C" explosives in excess of 3000 lb. net explosive content on the land area of port facilities is prohibited. Each terminal handling explosives shall develop a specific "safe haven" plan which shall comply with CFR-27, Parts 181.198, 181.199, and 181.200 and the American Table of Distances for storage of explosive materials. "Safe Haven" plans must be submitted to, and inspected and approved by, the Philadelphia Fire Department.

Permission to use a "Safe Haven" for the storage of explosives will be granted or denied by the Fire Department based on the following criteria:

1. Nature of the emergency and/or unforeseen circumstances which lead to delay in loading.
2. Class of, and quantity of, explosives to be stored, and storage capacity of approved "safe haven".
3. Duration of storage in "safe haven".

These criteria will be considered and permission for "safe haven" use granted or denied on a case by case basis. The Fire Department may also seek input from the Coast Guard, the Terminal Operators, the Port Corporation, the DRPA, or other concerned entities or individuals in arriving at "safe haven" use decisions.

The Fire Department will continue to monitor this procedure, and will adjust this policy position as the need arises.

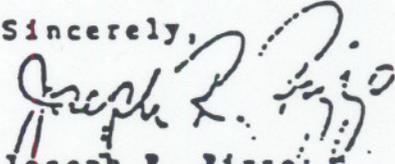
Sincerely,

 Joseph R. Rizzo
 Fire Commissioner



EXHIBIT "C"
CITY OF PHILADELPHIA

FIRE DEPARTMENT

The Administration Building
300 & Spring Garden Streets Philadelphia, Pa. 19106

JOSEPH R. ALZO
Commissioner



March 30, 1983

Thomas J. Tomasco, CHAST&T Mgr.
Traffic and Regulatory Matters
Phila. Port Corporation
1020 Public Ledger Building
6th and Chestnut Streets
Philadelphia, Pa. 19106

Dear Mr. Tomasco:

The Philadelphia Fire Department, having recognized the need for appropriate guidelines to be followed when moving explosive material through the port of Philadelphia, met with representatives of those agencies and companies involved in the Marine Transportation Industry and developed the following regulations.

Effective immediately, the movement of explosive products through the Port of Philadelphia will be accomplished in compliance with the following:

1. GENERAL GUIDELINES -

[CFR-33§126.29(a), CFR-33§126.35, CFR-49§173.1(b)]

The U.S.C.G. Captain of the Port is authorized to require that any transaction of handling, storing, stowing, loading, discharging or transporting dangerous goods at or on a waterfront facility shall be undertaken and continued only under the immediate supervision and control of the Captain of the Port or his duly authorized representative and the local authority (Fire Department). Owners, operators and agents of waterfront facilities are not relieved of their primary responsibility for the safety and security of their facilities. It is the duty of each person who offers or receives hazardous materials for transportation to instruct his officers, agents and employees having any responsibility for preparing or receiving hazardous materials for shipment as to applicable city, state, and federal regulations and they are responsible for strict adherence to these regulations.

Exhibit I

Exhibit J

Prior to shipment of explosives in authorized vehicles to waterfront facilities for export, manufacturers are required under federal law (Code of Federal Regulations - CFR's 33 and 49) to obtain permits for transportation from local and federal regulatory agencies.

11. PROHIBITED COMMODITIES -

[CFR-49§171.7]

Through research, experimentation and extensive testing conducted by and under the auspices of the Bureau of Explosives of the Association of American Railroads (AAR), International Maritime Organization (IMO), Institute of Makers of Explosives (IME), National Fire Protection Association (NFPA) and other competent authorities, the transportation of the following explosives is forbidden ergo the handling and storage of these explosive in or on waterfront facilities is forbidden:

[CFR-49§173.51]

- a. Explosive compounds, mixtures, or devices which ignite spontaneously or undergo marked decomposition when subject to a temperature of 167°F (75°C), for 48 consecutive hours.
- b. Explosive mixtures or devices containing an acidic metal salt and a chlorate.
- c. Explosive mixtures or devices containing an ammonium salt and a chlorate.
- d. New explosive compounds, mixtures or devices not examined and assigned a recommended description and hazard class.
- e. Leaking or damaged packages of explosives.
- f. Nitroglycerin, diethyleneglycol dinitrate or other liquified explosives not authorized as a desensitized liquid explosive or any solid compound mixtures or device designated and examined by the Bureau of Explosives.
- g. Loaded firearms.
- h. Fireworks that combine an explosive or blasting cap and a detonator.

- i. Fireworks containing yellow or white phosphorous.
- j. Toy torpedoes, with a maximum outside dimension exceeding 7/8 inch or toy torpedoes containing a mixture of potassium chlorate, black antimony, and sulfur with an average weight of explosive composition for each unit exceeding four grains.

III. TRANSPORTATION OF EXPLOSIVES -

All transportation and handling of explosives will be accomplished in compliance with §5-1000 of the Philadelphia Fire Code.

Designated dangerous cargo as defined in CFR-49

Class "A" Explosives: CFR-49§173.53 to and including §173.86.

Class "B" Explosives: CFR-49§173.88 to and including §173.196.

Class "C" Explosives: CFR-49§173.100 to and including §173.114a.

in the amount specified below shall not be brought onto a waterfront facility, except when laden within a railroad car or highway vehicle and shall remain in such railroad or highway vehicles except when removed as an incident of its prompt transshipment, without prior notification of the Captain of the Port:

- . Explosives, Class "A", all shipments at any one time;
- . Explosives, Class "B", in excess of one net ton at any one time;
- . Explosives, Class "C", in excess of ten net tons at any one time.

Explosives approved for handling on marine facilities shall be delivered and loaded aboard vessels on sailing day. It shall be the responsibility of the Terminal Operator to coordinate delivery and loading functions so as to eliminate delay.

Exhibit K

Exhibit C

Exhibit I

Exhibit J

EXHIBIT "A"

THE PREMISES

I. Tioga Marine Terminal

The Tioga Marine Terminal consists of both the Tioga Container Terminal and the Tioga Breakbulk Terminal. The Tioga Container Terminal consists of Tioga IA (the northern portion of Tioga I Terminal). The Tioga Breakbulk Terminal consists of two areas: (1) Tioga IB and (2) Tioga II.

II. Tioga Container Terminal

TCT covers approximately 50.221 acres in area and is bounded by Delaware Avenue to the north/northwest, Tioga IB to the south/southwest, and the Delaware River to the southeast. It includes the following major features:

- **Vessel Berths:** Two (2) marginal vessel berths abutting each other and located on the southeastern portion of TCT. The total length of the berths is approximately one thousand four hundred and nineteen (1,419) feet and their depth is approximately thirty-six (36) feet.
- **Crane and Track:** Crane track approximately one thousand three hundred and seventy-five (1,375) to approximately one thousand four hundred and ninety-two (1492) feet in length runs parallel to the vessel berths described above. Two (2) forty-five (45) ton gantry container cranes are positioned over and perpendicular to the crane track.
- **Buildings:**

Tioga I

A terminal equipment maintenance and repair shop (a/k/a the M&R Building), located southeast of Delaware Avenue and northeast of the PGW easement.

A gatehouse for incoming and outgoing containers, located southeast of Delaware Avenue and southwest of both the PGW easement and railroad tracks.

Tioga II

Building 179 (a/k/a the Butler Building and Shed 179), a gas-heated container freight station with a total area of approximately forty thousand (40,000) square feet. It has an approximately twenty-two (22) foot clearance under the roof trusses, a northwest loading dock with canopied

positions for eight (8) trucks, and a southwest loading dock with canopied positions for twenty (20) trucks.

- **Reefer Outlets:** Eighty (80) refrigerated container receptacles (480 volt, 3 phase) are located southeast of Delaware Avenue and northeast of the M&R Bldg.

III. Tioga Breakbulk Terminal ("TBT")

TBT covers approximately 46.541 acres in area (Tioga IB contains approximately 33.256 acres and Tioga II contains approximately 13.285 acres.) Tioga IB is bounded by Delaware Avenue to the northwest, Tioga IA to the northeast, and the RoRo Berth and the connecting road to Tioga II to the southwest. Tioga IB includes the following major features:

- **Vessel Berths:** Three (3) marginal vessel berths abutting each other and located on the southeastern portion of Tioga IB. The total length of the berths is approximately one thousand seven hundred and thirty-six (1,736) feet and their depth is approximately thirty-six (36) feet. One slip berth at the south end of Tioga IB runs approximately six hundred and ten (610) feet.

- **Buildings:**

Tioga I Transit Shed (a/k/a Tioga I Shed), running northeast to southwest on the southeastern portion of Tioga I and parallel to the vessel berths. It is a gas-heated storage building with a total area of approximately three hundred thousand (300,000) square feet, of which approximately one hundred fifty thousand (150,000) square feet is refrigerated. It has an approximately twenty (20) foot clearance under the roof trusses and forty-eight (48) canopied truck loading doors with truck seals and levelers.

Tioga III Building (a/k/a Tioga III Shed), located in the area between the southwestern end of the Tioga I Building and the slip berth. It is a gas-heated building containing transit shed space and terminal space with a total area of approximately ninety-seven thousand five hundred (97,500) square feet. It has an approximately twenty-two (22) foot clearance under the roof trusses and thirty-four (34) canopied truck loading doors with truck seals and levelers.

- **Reefer Outlets:** Forty (40) refrigerated container receptacles (four at 240 volt, 3 phase; thirty-six at 480 volt, 3 phase) are located southeast of Delaware Avenue and near the north area of Tioga IB
- **Trailer Parking Spaces, Service and Access Roads:** these are located approximately along the northwest side of Tioga IB.

Tioga II is bounded by Delaware Avenue to the northwest, Tioga IB to the northeast, and Allegheny Avenue to the southwest. Tioga II includes the following major features:

- **Buildings:**

A carpenter shop (a/k/a Maintenance Shop) located on the northwest side of Tioga II, Berth 2, by 30' by 12-foot high extension. It has a total area of approximately ten thousand four hundred and twelve (10,412) square feet, most of which is floor area on grade; approximately nine hundred and sixty (960) square feet are in a mezzanine area.

Tioga II Building (a/k/a Tioga II, Reefer Shed, Temperature Control Shed, transit shed/warehouse), located on the southeast side of Tioga II. It has a total area of approximately ninety thousand (90,000) square feet divided into five (5) rooms independently capable of electric cooling to thirty-two degrees (32°) Fahrenheit. Rooms 1 and 2 each contain approximately twenty-five thousand (25,000) square feet of space; the other three rooms contain thirty-three hundred (3,300), fifty-five hundred (5,500) and thirty-one thousand two hundred (31,200) square feet for an approximate total of forty thousand (40,000) square feet of space. There is a mechanic's shop (a/k/a mechanical room) at the southwest end of the building.

Storage Building, a container freight storage building located adjacent to Berth 2, southeast of Delaware Avenue, and northeast of the Tioga II Building.

- **Reefer Outlets:** Thirty-six (36) refrigerated container receptacles (480 volt, 3 phase) are located southeast of the Carpenter Shop and northwest of the Tioga II Building.
- **Trailer Parking Spaces, Service and Access Roads:** these are located approximately along the north side of Tioga II.

TIOGA MARITIME TERMINAL MASTER PLAN (Copy on Following Page)