

DEPARTMENT OF THE NAVY

COMMANDER NAVY REGION HAWAII 850 TICONDEROGA ST STE 110 JBPHH, HAWAII 96860-5101

MAY 23 2019

5750 Ser N4/0533 May 15, 2019

CERTIFIED NO: 7016 0910 0001 0891 7390

Ms. Roxanne Kwan Hawaii State Department of Health Environmental Management Division Solid and Hazardous Waste Branch Underground Storage Tank Section 2827 Waimano Home Road #100 Pearl City, HI 96782

Dear Ms. Kwan:

SUBJECT: UST PERMIT APPLICATION FOR RED HILL BULK FUEL STORAGE FACILITY, JBPHH, OAHU, DOH FACILITY ID NO. 9-102271

The Navy submitted a permit application on 13 March 2019 for Red Hill Bulk Fuel Storage Facility (RHBFSF). Based upon DOH feedback, the application has been revised and shall replace the original submittal.

This letter and its enclosures provide information that does not fit into the application form "Application for an Underground Storage Tank Permit – Form No. 2" and are incorporated into the permit application.

The confidential/redacted information has been provided in full to the DOH; however, the Navy considers this information to be confidential under the Hawaii Revised Statutes (HRS) 342L-15 and does not concur with and will not allow its public release. The documents containing the exact location of the sensitive infrastructure comprising the system to include pipelines, hydrants, fill stands, etc. is for official use only and cannot be disclosed to the public because the impact of any damage caused to this system is so great, that it could cause irreparable harm to the government. Additionally, the technology and methodology used in these reports is proprietary to the contractor. Disclosure of their processes and procedures would result in significant competitive harm to the contractors. The government is bound not to disclose the information for other than official use by contract, federal law, and the Trade Secrets Act.

The revised Application for an Underground Storage Tank Permit – Form No. 2 is being submitted as Enclosure 1.

A Location Map of the Red Hill storage tanks is provided as Enclosure 2. A Location Map of the surge tanks and piers is provided as Enclosure 3. A Location Map of the Hickam airfield hydrant system, which includes hydrant pits and product recovery tanks, is provided as Enclosure 4.

Primary Containment Material

The RHBFSF tanks F-1 to F-20 and F-ST1 to F-ST4 are constructed of reinforced concrete and lined with steel. The primary containment material is steel.

Facility Piping

Tank and piping diagrams for Defense Fuel Support Point (DFSP) Pearl Harbor and Hickam Airfield Hydrant System are provided as Enclosure 5. The diagrams indicate which segments of piping are in contact with the ground and have corrosion protection (dashed line), and which segments are above ground (solid line). All piping is single wall steel.

Piping - Release Detection

The piping for tanks F-1 to F-20 and F-ST1 to F-ST4 that is located between the tank and the first valve (nozzle piping) is considered and tested as part of the RHBFSF tanks. Information on tank tightness testing is presented in the "Tanks - Release Detection" section, below.

The piping located inside the RHBFSF tunnel is above ground; therefore, no release detection method for this above ground piping is checked in Section XI.11 on pages 6, 10, 14, 18, and 22 of the permit application form.

A line tightness test is performed annually on petroleum pipeline segments located outside the RHBFSF tunnel and fully or partially in contact with the ground. In January 2019, the leak detection rate per test section volume met the requirements of HAR §11-280.1-44(4)(A)(i), except for one pipeline section. This pipeline section was subsequently removed from service until it is repaired by replacement. See excerpts from the 2019 Annual Leak Detection Testing Report of Sections (b) (3) (A) of Petroleum Pipelines of March 2019, which are provided as Enclosure 6. Information on the petroleum pipeline segments located outside the RHBFSF tunnel and fully or partially in contact with the ground is presented on pages 19 to 22 of the permit application form, in the column labeled "Pipelines Located Outside Tunnel."

An annual static liquid pressure test is performed on pier pipelines to confirm that no leaks occur under static liquid pressure at least 1.5 times the maximum allowable working pressure as required in 33 CFR 156.170. This meets the requirements of HAR §11-280.1-44(4)(A)(i). In January 2019, the pier pipelines passed the annual static pressure testing. See excerpts from the

2019 Annual Static Liquid Pressure Testing Report of Sections (b) (3) (A) of Petroleum Pier Pipelines of March 2019, which are provided as Enclosure 7.

The annual line tightness test of the piping associated with tanks PRT-Diamond Head and PRT-Ewa meets the requirements of HAR §11-280.1-44(4)(A)(i). Results for the January 2019 leak detection testing are presented in Table 2-1 of Enclosure 6. Test Section 10, "Type III PRT Issue," is the piping associated with tank PRT-Ewa, and Test Section 13, "AMC PRT Issue," is the piping associated with tank PRT-Diamond Head.

Piping - Cathodic Protection

All piping segments that are in contact with the ground are protected by an impressed current cathodic protection system. A detailed description of the system, including a description of rectifiers, system drawings, and location of anode beds, can be found in the two most recent Annual Pearl Harbor Cathodic Protection Survey Reports and Annual Hickam Cathodic Protection Survey Reports. Excerpts from these reports are provided as Enclosures 8 and 9, respectively.

Product Recovery Tanks

Tanks PRT-Diamond Head and PRT-Ewa are protected by an impressed current cathodic protection system. A detailed description of the system, including a description of the rectifiers, system drawings, and location of anode beds, can be found in the two most recent Hickam Cathodic Protection Survey Reports. Excerpts from these reports are provided as Enclosure 9.

Tanks - Release Detection

A tank tightness test is performed on tanks F-2 to F-18 and F-20, and tanks F-ST1 to F-ST4 semi-annually, unless they have been emptied for the Clean, Inspect, Repair (CIR) process. The tank tightness test meets the 0.5 gallon per hour leak rate as specified in HAR §11-280.1-43(10)(A). See excerpts from the *Final 2018 Annual Leak Detection Testing Report of 17 Bulk Field-Constructed Underground Storage Tanks at Red Hill Fuel Storage Complex* of January 2019, which are provided as Enclosure 10.

Method of Product Dispensing

Tanks F-ST1 to F-ST4 are not storage nor dispensing tanks, instead they serve as surge tanks to allow for the buffering of product pressure throughout the system during product movement. They have no ability to dispense fuel.

Overfill Prevention Equipment

Tanks F-1 to F-20 and F-ST1 to F-ST4 are equipped with an Automated Fuel Handling Equipment (AFHE) Industrial Control System (ICS) inventory monitoring based on Automatic Tank Gauging (ATG) equipment overflow protection sensors and equipment that de-energizes the pump and shuts an isolation valve to prevent overfilling each UST once the fuel level in the tank reaches no more than 95% full.

The AFHE system operates 24 hours a day, 365 days a year, and is a continuously manned and monitored system, equipped with both a high and high-high level alarm, with high alarms set at a level of no more than 90% full.

Airfield Piping

Information on the airfield piping has been added to pages 23 to 26 of the UST permit application form. All of the piping is underground, as shown in Enclosure 5 and the figures of Enclosure 6. Table 2-1 of Enclosure 6 provides a summary of the 2019 annual leak detection testing results for each of the 21 sections of airfield piping. Test sections 11, 12, 13, 14, 15, 20 and 21 are associated with the Diamond Head Piping Loop. The other fourteen sections are associated with the Ewa Piping Loop.

If you have any questions regarding this matter or need any additional information, contact of (b) (6) or by email at

Sincerely,

M. R. DELAO Captain, CEC, U.S. Navy

Regional Engineer By direction of the

Commander

Enclosures:

- 1. Revised DOH Form No. 2, Application for an Underground Storage Tank Permit for Red Hill Bulk Fuel Storage Facility, DOH Facility ID No. 9-102271 of May 15, 2019
- 2. Location Map of Red Hill Storage Tanks
- Location Map of Surge Tanks and Piers
- 4. Location Map of Hickam Airfield Hydrant System
- REDACTED Tank and Piping Diagrams for DFSP Pearl Harbor and Hickam Airfield Hydrant System
- 6. REDACTED Excerpts from 2019 Annual Leak Detection Testing Report of Sections
 (b) (3) (A) of Petroleum Pipelines of 14 March 2019, prepared for Defense Logistics Agency Energy, submitted by Michael Baker International
- 7. REDACTED Excerpts from 2019 Annual Static Liquid Pressure Testing Report of Testing Sections ((b) (3) (A)) of Petroleum Pier Pipelines of March 2019, prepared for Defense Logistics Agency Energy, submitted by Michael Baker International
- 8. REDACTED Excerpts from July 2017 and February 2018 Annual Pearl Harbor Cathodic Protection Survey Reports
- 9. REDACTED Excerpts from September 2016 and January 2018 Annual Hickam Cathodic Protection Survey Reports
- 10. REDACTED Excerpts from Final 2018 Annual Leak Detection Testing Report of 17 Bulk Field-Constructed Underground Storage Tanks at Red Hill Fuel Storage Complex, Joint Base Pearl Harbor-Hickam, Hawaii of 23 January 2019, prepared for Defense Logistics Agency Energy, submitted by Michael Baker International

Blind copy (via email) to:

(b) (6)

NAVSUP FLC Pearl Harbor
(b) (6)

NAVSUP FLC Pearl Harbor
(b) (6)

NAVSUP FLC Pearl Harbor

NAVFAC HI Counsel

Enclosure 1

SOLID AND HAZARDOUS WASTE BRANCH

Underground Storage Tank Program

MAY 2 3 2019

2827 Waimano Home Road #100 • Pearl City, Hawaii 96782

Phone: 808 - 586- 4226 • Fax: 808-586-7509 • http://health.hawaii.gov/shwb/underground-storage-tanks/ CNRH LETTER 5750 SER N4/0533 OF MAY 15, 2019 IS INCORORATED BY REFERENCE AND MADE A PART OF THIS APPLICATION

APPLICATION FOR AN UNDERGROUND STORAGE TANK PERMIT

Return completed forn	Return completed form to:				Only	
Solid and Hazardous Waste Br. Underground Storage Tank Pro 2827 Waimano Home Road # Pearl City, Hawaii 96782		Date received: Permit Number:				
Facility ID Number: 9-102271	Perm	it Fee:				
Type Of Notification: Installation and Operation (\$300) Operation (\$300)	Rece					
Modification - except for temporary & perman	nent closure (\$200)			11-8 12 (010) 11-8 12 (010)	
1.	LOCATION	OF TANK(S)				
Red Hill Bulk Fuel Storage Facility Facility Name or Company Site identifiers			(b) (6)			
Red Hill Location Address (P.O. Box not acceptable)	Aiea City	Hawaii State	96701 Zip Code	Oahu Island	98010006, 99010001, 11012003, 11012004 Tax Map Key #	
(b) (6)		473-7815			<u></u>	
Location Phone # (w/ area code)		x# (w/ area cod		ACCOUNTS OF THE PARTY OF		
II. CONT	ACT PERSON IN	CHARGE OF		l Eurola Offic		
Name				I Fuels Office Position Title		
1942 Gaffney Street, Suite 100		JBPHH		HI	96860	
Mailing Address		City		State	Zip Code	
(b) (6)	3) 473-7815		(b) (6)		

Facility II	D No.	9-102271

	III. OWNER OF TANK(S)	and the second s	gang kacamatan Madadi Madadi Kabulatan Ka
US Navy - COMNAVREG HI			
Owner Name (Corporation, Individual, Public A	Agency, or Other Entity)		
850 Ticonderoga Street, Suite 110	ЈВРНН	н	96860
Mailing Address	City	State	Zip Code
(200) 474 2000	(000) 470 5004	mara dalaa @nayy mil	
(808) 471-3926 Phone # (w/ area code)	(808) 473-5024 Fax # (w/ area code)	marc.delao@navy.mil E-mail Address	
,,,,,,,	((
IV ORERATOR	OF TANK/S) (if same as Section	III. ahaak hara [7])	
	R OF TANK(S) (if same as Section	iii, check here)	
Naval Supply Systems Command Fleet Log Operator Name (Corporation, Individual, Publi			
Operator Name (Corporation, Individual, Publi	c Agency, or Other Entity)		
1942 Gaffney Street, Suite 100	JBPHH	HI	96860
Mailing Address	City	State	Zip Code
(b) (6)	(808) 473-7815	(b) (6)	
Phone # (w/ area code)	Fax # (w/ area code)	E-mail Address	
	V, CONTRACTOR		
N/A		N/A	
Company Name		Contact Person Name)
N/A	N/A	N/A	
Mailing Address	City	State	Zip Code
		N/A	
Phone # (w/ area code)	Fax# (w/ area code)	E-mail Address	
,			
	VI. TYPE OF OWNER	moneyet for a first man for the first and the first money of the second of the first for first and the first for the first for the first form of the first f	~
Federal Government (Military)	Federal Government (Non-Military)	State Government	
Local Government	Marketer (Northinitary)	Non-Marketer	
VII. TYPE OF I	FACILITY (Select the appropriate	facility description)	
Airline Contractor	Petroleum Distributor	Service Centers/Auto Repair	/Maintenance
Auto Dealership Farm	Police Station	Trucking/Transporter	
Baseyard Fire Station	Residential	Utilities	
☐ Car Rental ☐ Gas Station	Resort/Hotel	Wastewater Treatment Plant	s
☐ Cleaner/Laundromat ☐ Golf Course		Wholesaler/Retailer	t.a.u.a
Communication Sites Hospital	L ✓ Other (Explain) Fuel S	torage and Airfield Hydrant Sy	stell!

Facility ID No.	9-102271
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				NO AND CONTRACTOR RECEIVED TO SERVICE OF THE SERVIC	
VIII. FINAN	ICIAL RESPON	SIBILITY (Chec	k all that apply)	
Financial Test of Self Insurance	etter of Credit Surety Bond Trust Fund	Other	Government Bond Method Allowed (ot: State or	Specify)	ncy
	IX. FACILI	TY DRAWING			
Include a drawing showing the general layout of scale. This drawing should show the following: A. The property boundaries of the facility; B. Identification of streets, roads and near C. Identification of nearby facilities; D. Tax Map Key (TMK) Numbers; E. Location of buildings at the facility; F. The approximate dimensions of the process of th	rby bodies of water operty boundaries a mps (identified <u>by r</u>	.; and major building	gs;		
					ann-eastain ann eachann eastain earann eige
Include a map showing the location of the tanks level of detail such that the site would be easily XI. DESCRIPTION (located.	n an anna ann an ann an ann an an an an	TO COMPANY AND THE WAY AND A STATE OF THE ST		Tank No. F-5
Status of Tank (Mark only one)					
A. Currently in Use		V			
B. Temporarily Out of Use					7
Date of Installation (month/year)	10/1942	09/1942	01/1943	11/1942	12/1942
Estimated Capacity (gallons)	12,000,000	12,000,000	12,000,000	12,000,000	12,700,000
A. Compartmentalized? Yes/No	No	No	No	No	No
Estimated compartment capacity (gallons)					
B. Manifolded? Yes/No	No	No	No	No	No
4. Substance Stored					
A. Gasoline (Specify product grade)	N/A	N/A	N/A	N/A	N/A
B. Diesel					
C. Gasohol (Including ethanol blends) Specify product grade	N/A	N/A	N/A	N/A	N/A
D. Kerosene					

Application for an Underground Storage Tank Permit - Form No. 2 Date: July 16, 2018

Tank Number	Tank No. F-1	Tank No. F-2	Tank No. F-3	Tank No. <u>F-4</u>	Tank No. <u>F-5</u>
E. Used Oil/Waste Oil					
F. JP-4					
G. Non-Petroleum Hazardous Substance (CERCLA name and/or CAS#)	N/A	N/A	N/A	N/A	N/A
H. Mixture of Substances (Please specify)	N/A	N/A	N/A	N/A	N/A
I. Other, please specify.	EMPTY	F-24	F-24	F-24	EMPTY
Substance Compatible with Tank and Piping? Yes/No	N/A	Yes	Yes	Yes	N/A
6. Tank (Mark all that apply)					
A. Manufacturer and Model	Field- constructed	Field- constructed	Field- constructed	Field- constructed	Field- constructed
B. Underwriters Laboratory No.	N/A	N/A	N/A	N/A	N/A
C. Primary Containment Material or Single-	Walled Tank				
i. Fiberglass reinforced plastic					
ii. Steel	✓	√	V	V	√
iii. Other, please specify.					
D. Secondary Containment Material					
i. Fiberglass reinforced plastic					
ii. Steel					
iii. Other, please specify.	N/A	N/A	N/A	N/A	N/A
iv. None	✓	V	V	V	✓
E. Corrosion Protection (except Fiberglass	reinforced plastic	tanks)	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
i. Fiberglass coated steel					
ii. Double-walled steel					
iii. Impressed current system					
iv. Sacrificial anode system					
v. Corrosion expert determination					
vi. Other, please specify.	N/A	N/A	N/A	N/A	N/A
7. Píping					
A. Manufacturer and Model	Unknown	Unknown	Unknown	Unknown	Unknown
				i	

	Tank Number	Tank No. F-1	Tank No. F-2	Tank No. F-3	Tank No. F-4	Tank No. F-5
C. Primary	Containment Material or Single-	Walled Piping	n di umaka di Guadana a di kadala da di kada a da a da a da a da a da a	en der vergreiche der verweicht das ein der vergreiche der der der der vergreicht der vergreicht der vergreich	andre de de la companya de la compa	and a second communication of the second communication of
i. Fibe	erglass reinforced plastic					
ii. Flex	x piping					
iii. Stee	el	V	✓	✓	✓	✓
iv. Oth	er, please specify.	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground
D. Second	lary Containment Material					
i. Fibe	erglass reinforced plastic					
ii. Flex	x piping					
iii. Line	ed trench					
iv. Othe	er, please specify.					
v. Non	ne .	✓	✓	✓	√	✓
E. Corrosio	on Protection (except fiberglass re	einforced plastic p	oiping)			
i. Fibe	erglass coated steel					
ii. Imp	ressed current system					
iii. Sac	crificial anode system					
iv. Cor	rosion expert determination					
v. Othe	er, please specify.	N/A	N/A	N/A	N/A	N/A
8. Method of P	Product Dispensing					
A. Unsafe	Suction (valve at tank)					
B. Safe Su	uction (no valve at tank)					
C. Pressure	e	✓	√	✓	✓	\checkmark
D. Not App	olicable					
9. Spill prevent	tion equipment					
A. Manufad	cturer and Model	N/A	N/A	N/A	N/A	N/A
B. Capacity	y (gallons)					
10. Overfill prev	vention equipment	\checkmark	\searrow	✓	$\overline{\mathbf{V}}$	\
	tic shutoff device (flapper) and Model					
B. Overfill a Make a	alarm and Model	See cover letter	See cover letter	See cover letter	See cover letter	See cover letter
C. Ball floa Make a	it valve and Model					

Tank Number	Tank N	lo. <u>F-1</u>	Tank N	lo. <u>F-2</u>	Tank N	loF-3	Tank N	lo. <u>F-4</u>	Tank N	lo. F-5
11. Release Detection (Mark all that apply)	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. Manual tank gauging		NA		NA		NA		NA		NA
B. Tank tightness testing		NA	√	NA	V	NA	V	NA	\	NA
C. Inventory control		NA		NA		NA		NA		NA
D. Automatic tank gauging		NA		NA		NA		NA		NA
E. Vapor monitoring										
F. Groundwater monitoring										
G. Interstitial monitoring										
H. Statistical inventory reconciliation										
I. Automatic line leak detectors (Yes/No)	NA	No	NA	No	NA	No	NA	No	NA	No
If YES, specify type.										
J. Line tightness testing	NA		NA		NA		NA		NA	
K. Other method approved by the Department. Please specify										

Dispenser Unit	Manufacturer of Dispenser	Dispenser Serial #	Under Dispenser Containment installed (Yes/No) - Installation Date
1			N/A
2			N/A
3			N/A
4			N/A
5			N/A
6			N/A
7			N/A
8			N/A
9	•		N/A
10			N/A
11			N/A
12			N/A

Facility	ID No.	9-102271

			entra di Silini di Panto, dala indicata na di Silini ca di Arima di Silini di Arima di Silini di Arima (1904)		
VIII. FINAN	ICIAL RESPONS	SIBILITY (Chec	k all that apply)	
Financial Test of Self Insurance	etter of Credit Surety Bond rust Fund	Other	Government Bond Method Allowed (ot: State or	Specify)	cy
Per Constant de Conseiller Constant de Con	IX. FACILI	TY DRAWING			Annual de la Carte
Include a drawing showing the general layout of scale. This drawing should show the following: A. The property boundaries of the facility; B. Identification of streets, roads and near C. Identification of nearby facilities; D. Tax Map Key (TMK) Numbers; E. Location of buildings at the facility; F. The approximate dimensions of the process of th	rby bodies of water operty boundaries a mps (identified <u>by r</u>	.; and major building	gs;		
	Ϋ́ΙΩС	ATION MAP	naven neg von med kleinte for verse en en gegenhoer en en gehande for en en en en eile glee	the according to the contributed the contributed to the Contributed Contribute	BARRET MERCANDE AMERICA (SANCE MAY DE MANAGE AMERICA (SANCE AMERIC
Include a map showing the location of the tanks level of detail such that the site would be easily XI. DESCRIPTION (located.			tire divinities a state and the side translation between the state of	i landmarks to a
Tank Number	Tank No. F-6	Tank No. F-7	Tank No. F-8	Tank No. F-9	Tank No. F-10
Status of Tank (Mark only one)					
A. Currently in Use	√	✓	✓	✓	✓
B. Temporarily Out of Use					
Date of Installation (month/year)	12/1942	05/1943	03/1943	02/1943	01/1943
Estimated Capacity (gallons)	12,700,000	12,700,000	12,700,000	12,700,000	12,700,000
A. Compartmentalized? Yes/No	No	No	No	No	No
Estimated compartment capacity (gallons)					
B. Manifolded? Yes/No	No	No	No	No	No
Substance Stored	,	•		<u> </u>	<u> </u>
A. Gasoline (Specify product grade)	N/A	N/A	N/A	N/A	N/A
B. Diesel					
C. Gasohol (Including ethanol blends) Specify product grade	N/A	N/A	N/A	N/A	N/A
D. Kerosene					

Application for an Underground Storage Tank Permit - Form No. 2 Date: July 16, 2018

Tank Number	Tank No. F-6	Tank No. <u>F-7</u>	Tank No. F-8	Tank No. <u>F-9</u>	Tank No. F-10
E. Used Oil/Waste Oil					
F. JP-4					
G. Non-Petroleum Hazardous Substance (CERCLA name and/or CAS#)	N/A	N/A	N/A	N/A	N/A
H. Mixture of Substances (Please specify)	N/A	N/A	N/A	N/A	N/A
Other, please specify.	F-24	JP-5	JP-5	JP-5	JP-5
Substance Compatible with Tank and Piping? Yes/No	Yes	Yes	Yes	Yes	Yes
6. Tank (Mark all that apply)					
A. Manufacturer and Model	Field- constructed	Field- constructed	Field- constructed	Field- constructed	Field- constructed
B. Underwriters Laboratory No.	N/A	N/A	N/A	N/A	N/A
C. Primary Containment Material or Single-	Walled Tank				
i. Fiberglass reinforced plastic					
ii. Steel	V	√	7	√	✓
iii. Other, please specify.					
D. Secondary Containment Material					
i. Fiberglass reinforced plastic					
ii. Steel					
iii. Other, please specify.	N/A	N/A	N/A	N/A	N/A
iv. None	✓	V	✓	V	V
E. Corrosion Protection (except Fiberglass	reinforced plastic	tanks)			
i. Fiberglass coated steel					
ii. Double-walled steel					
iii. Impressed current system					
iv. Sacrificial anode system					
v. Corrosion expert determination					
vi. Other, please specify.	N/A	N/A	N/A	N/A	N/A
7. Piping					
A. Manufacturer and Model	Unknown	Unknown	Unknown	Unknown	Unknown
B. Underwriters Laboratory No.	Unknown	Unknown	Unknown	Unknown	Unknown

Tank Number	Tank No. F-6	Tank No. F-7	Tank No. F-8	Tank No. F-9	Tank No. F-10
C. Primary Containment Material or Single-	Walled Piping	биндоліва із косіоністі ста сти по под под под под под под под под под	обрання в нес в насашей посабо до до посабо на пос	AZACCOTTE DOGARHA GINDÓNICA TRADA (AZADOTECÍSE DOMESSO	от подыте основнит выпользования выстрения выпользования выстрения выпользования выпользования выпользования выпользован
i. Fiberglass reinforced plastic					
ii. Flex piping					
iii. Steel	V	✓	✓	✓	✓
iv. Other, please specify.	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground
D. Secondary Containment Material					
i. Fiberglass reinforced plastic					
ii. Flex piping					
iii. Lined trench					
iv. Other, please specify.					
v. None	✓	✓	✓	✓	✓
E. Corrosion Protection (except fiberglass r	einforced plastic p	oiping)			
i. Fiberglass coated steel					
ii. Impressed current system					
iii. Sacrificial anode system					
iv. Corrosion expert determination					
v. Other, please specify.	N/A	N/A	N/A	N/A	N/A
8. Method of Product Dispensing					
A. Unsafe Suction (valve at tank)					
B. Safe Suction (no valve at tank)					
C. Pressure	V	✓	V	√	✓
D. Not Applicable					
9. Spill prevention equipment					
A. Manufacturer and Model	N/A	N/A	N/A	N/A	N/A
B. Capacity (gallons)					
10. Overfill prevention equipment	✓	✓	✓	✓	✓
A. Automatic shutoff device (flapper) Make and Model					
B. Overfill alarm Make and Model	See cover letter	See cover letter	See cover letter	See cover letter	See cover letter
C. Ball float valve Make and Model					

Tank Number	Tank N	lo. F-6	Tank N	lo. F-7	Tank N	_{lo.} F-8	Tank N	_{lo.} F-9	Tank N	lo. F-10
11. Release Detection (Mark all that apply)	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. Manual tank gauging		NA		NA		NA		NA		NA
B. Tank tightness testing	√	NA	V	NA	V	NA	V	NA	V	NA
C. Inventory control		NA		NA		NA		NA		NA
D. Automatic tank gauging		NA		NA		NA		NA		NA
E. Vapor monitoring										
F. Groundwater monitoring										
G. Interstitial monitoring										
H. Statistical inventory reconciliation										
Automatic line leak detectors (Yes/No)	NA	No	NA	No	NA	No	NA	No	NA	No
If YES, specify type.										
J. Line tightness testing	NA		NA		NA		NA		NA	
K. Other method approved by the Department. Please specify										

Dispenser Unit	Manufacturer of Dispenser	Dispenser Serial #	Under Dispenser Containment installed (Yes/No) - Installation Date
1			N/A
2			N/A
3			N/A
4			N/A
5			N/A
6			N/A
7			N/A
8			N/A
9			N/A
10			N/A
11			N/A
12			N/A

Facility	ID	No.	9-102271

					per men anterior de la company de la comp
VIII. FINAN	NCIAL RESPONS	SIBILITY (Chec	k all that apply)	
Financial Test of Self Insurance	etter of Credit Surety Bond Trust Fund	Other	Government Bond Method Allowed (ot: State or	Specify)	cy
	and a such a part translate and a mail and also and a supply thinks a subthern home Plan				
	IX. FACILI	TY DRAWING			
Include a drawing showing the general layout of scale. This drawing should show the following: A. The property boundaries of the facility; B. Identification of streets, roads and nea C. Identification of nearby facilities; D. Tax Map Key (TMK) Numbers; E. Location of buildings at the facility; F. The approximate dimensions of the process of the	rby bodies of water operty boundaries a mps (identified <u>by r</u>	; and major building	gs;		
Ievel of detail such that the site would be easily XI. DESCRIPTION Tank Number		mplete for eac	h tank at this k	ocation) Tank No. F-14	Tank No. F-15
Status of Tank (Mark only one)	1000000	· · · · · · · · · · · · · · · · · · ·	10111101101 1 1		
A. Currently in Use					J
B. Temporarily Out of Use			V	V	
Date of Installation (month/year)	02/1943	03/1943	03/1943	03/1943	04/1943
3. Estimated Capacity (gallons)	12,700,000	12,700,000	12,700,000	12,700,000	12,700,000
A. Compartmentalized? Yes/No	No	No	No	No	No
Estimated compartment capacity (gallons)					
B. Manifolded? Yes/No	No	No	No	No	No
Substance Stored					
A. Gasoline (Specify product grade)	N/A	N/A	N/A	N/A	N/A
B. Diesel					
C. Gasohol (Including ethanol blends) Specify product grade	N/A	N/A	N/A	N/A	N/A
D. Kerosene					

Tank Number	Tank No. F-11	Tank No. F-12	Tank No. F-13	Tank No. F-14	Tank No. F-15
	Tank No.	Tank No	Tank No	Tankino:	Tank No. 1 19
E. Used Oil/Waste Oil					
F. JP-4					
G. Non-Petroleum Hazardous Substance (CERCLA name and/or CAS#)	N/A	N/A	N/A	N/A	N/A
H. Mixture of Substances (Please specify)	N/A	N/A	N/A	N/A	N/A
I. Other, please specify.	JP-5	JP-5	EMPTY	EMPTY	F-76
5. Substance Compatible with Tank and Piping? Yes/No	Yes	Yes	N/A	N/A	Yes
6. Tank (Mark all that apply)					
A. Manufacturer and Model	Field- constructed	Field- constructed	Field- constructed	Field- constructed	Field- constructed
B. Underwriters Laboratory No.	N/A	N/A	N/A	N/A	N/A
C. Primary Containment Material or Single-	Walled Tank				
i. Fiberglass reinforced plastic					
ii. Steel	V	✓	✓	√	√
iii. Other, please specify.					
D. Secondary Containment Material			-		
i. Fiberglass reinforced plastic					
ii. Steel					
iii. Other, please specify.	N/A	N/A	N/A	N/A	N/A
iv. None	V	√	√	V	V
E. Corrosion Protection (except Fiberglass	reinforced plastic	tanks)			
i. Fiberglass coated steel					
ii. Double-walled steel					
iii. Impressed current system					
iv. Sacrificial anode system					
v. Corrosion expert determination					
vi. Other, please specify.	N/A	N/A	N/A	N/A	N/A
7. Piping					
A. Manufacturer and Model	Unknown	Unknown	Unknown	Unknown	Unknown
B. Underwriters Laboratory No.	Unknown	Unknown	Unknown	Unknown	Unknown

Tank Number	Tank No. F-11	Tank No. F-12	Tank No. F-13	Tank No. F-14	Tank No. F-15				
C. Primary Containment Material or Single-Walled Piping									
i. Fiberglass reinforced plastic									
ii. Flex piping									
iii. Steel	✓	√	√	V	V				
iv. Other, please specify.	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground				
D. Secondary Containment Material									
i. Fiberglass reinforced plastic									
ii. Flex piping									
iii. Lined trench									
iv. Other, please specify.			-						
v. None	✓	✓	✓	\	✓				
E. Corrosion Protection (except fiberglass r	einforced plastic p	piping)							
i. Fiberglass coated steel									
ii. Impressed current system									
iii. Sacrificial anode system									
iv. Corrosion expert determination									
v. Other, please specify.	N/A	N/A	N/A	N/A	N/A				
8. Method of Product Dispensing									
A. Unsafe Suction (valve at tank)									
B. Safe Suction (no valve at tank)					1 101 1000				
C. Pressure	V	√	✓	√	V				
D. Not Applicable									
9. Spill prevention equipment									
A. Manufacturer and Model	N/A	N/A	N/A	N/A	N/A				
B. Capacity (gallons)									
10. Overfill prevention equipment	✓	\	✓	✓	✓				
A. Automatic shutoff device (flapper) Make and Model									
B. Overfill alarm Make and Model	See cover letter	See cover letter	See cover letter	See cover letter	See cover letter				
C. Ball float valve Make and Model									

Tank Number	Tank N	lo. <u>F-11</u>	Tank N	lo. F-12	Tank N	lo. <u>F-13</u>	Tank N	lo. <u>F-14</u>	Tank N	lo. F-15
11. Release Detection (Mark all that apply)	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. Manual tank gauging		NA		NA		NA		NA		NA
B. Tank tightness testing	V	NA	√	NA	V	NA	\	NA	V	NA
C. Inventory control		NA		NA		NA		NA		NA
D. Automatic tank gauging		NA		NA		NA		NA		NA
E. Vapor monitoring										
F. Groundwater monitoring										
G. Interstitial monitoring										
H. Statistical inventory reconciliation										
I. Automatic line leak detectors (Yes/No)	NA	No	NA	No	NA	No	NA	No	NA	No
If YES, specify type.										
J. Line tightness testing	NA		NA		NA		NA		NA	
K. Other method approved by the Department. Please specify										

Dispenser Unit	Manufacturer of Dispenser	Dispenser Serial #	Under Dispenser Containment installed (Yes/No) - Installation Date
1			N/A
2			N/A
3			N/A
4			N/A
5			N/A
6			N/A
7			N/A
8			N/A
9			N/A
10			N/A
11			N/A
12			N/A

Facility	ID No.	9-102271

VIII. FINAN	CIAL RESPONS	SIBILITY (Chec	k all that apply)	
Financial Test of Self Insurance	etter of Credit urety Bond rust Fund	Other	Government Bond Method Allowed (ot: State or	Specify)	cy
	IX. FACILI	TY DRAWING	Service and the service of the servi		e de la resulta de la compania de la seriencia.
Include a drawing showing the general layout of scale. This drawing should show the following: A. The property boundaries of the facility; B. Identification of streets, roads and near C. Identification of nearby facilities; D. Tax Map Key (TMK) Numbers; E. Location of buildings at the facility; F. The approximate dimensions of the pro G. Location of all USTs and dispenser pun Sections XI and XII), and associated pH. Indication of North/South direction.	by bodies of water perty boundaries a nps (identified <u>by r</u>	r; and major building	ās;		
		ATION MAP	**************************************	1897 — 49 COOK OF HER BOOK OF HER BOOK OF THE STORE OF TH	100-101/1007-111/100-101/100/101/101/101/101/101/101
Include a map showing the location of the tanks level of detail such that the site would be easily level.	ocated.			the annually string lands remaining these was desired desired and the	l landmarks to a
Tank Number	Tank No. F-16	Tank No. F-17	Tank No. F-18	Tank No. F-19	Tank No. F-20
Status of Tank (Mark only one)			. Breeks an weeksteer in Stock was an em a arye		
A. Currently in Use	√		V		V
B. Temporarily Out of Use		V		√	
Date of Installation (month/year)	05/1943	05/1943	05/1943	06/1943	07/1943
3. Estimated Capacity (gallons)	12,700,000	12,700,000	12,700,000	12,700,000	12,700,000
A. Compartmentalized? Yes/No	No	No	No	No	No
Estimated compartment capacity (gallons)					
B. Manifolded? Yes/No	No	No	No	No	No
4. Substance Stored					
A. Gasoline (Specify product grade)	N/A	N/A	N/A	N/A	N/A
B. Diesel					
C. Gasohol (Including ethanol blends) Specify product grade	N/A	N/A	N/A	N/A	N/A
D. Kerosene					

Application for an Underground Storage Tank Permit - Form No. 2 Date: July 16, 2018 $\,$

Tank Number	Tank No. <u>F-16</u>	Tank No. F-17	Tank No. F-18	Tank No. F-19	Tank No. F-20
E. Used Oil/Waste Oil					
F. JP-4			TO SOUTH AND		
G. Non-Petroleum Hazardous Substance (CERCLA name and/or CAS#)	N/A	N/A	N/A	N/A	N/A
H. Mixture of Substances (Please specify)	N/A	N/A	N/A	N/A	N/A
Other, please specify.	F-76	EMPTY	JP-5	EMPTY	JP-5
Substance Compatible with Tank and Piping? Yes/No	Yes	N/A	Yes	N/A	Yes
6. Tank (Mark all that apply)					
A. Manufacturer and Model	Field- constructed	Field- constructed	Field- constructed	Field- constructed	Field- constructed
B. Underwriters Laboratory No.	N/A	N/A	N/A	N/A	N/A
C. Primary Containment Material or Single-	Walled Tank				
i. Fiberglass reinforced plastic					
ii. Steel	√	√	V	<u> </u>	V
iii. Other, please specify.					
D. Secondary Containment Material					
i. Fiberglass reinforced plastic					
ii. Steel					
iii. Other, please specify.	N/A	N/A	N/A	N/A	N/A
iv. None	V	V	V	V	V
E. Corrosion Protection (except Fiberglass	reinforced plastic	tanks)			
i. Fiberglass coated steel					
ii. Double-walled steel					
iii. Impressed current system					
iv. Sacrificial anode system					
v. Corrosion expert determination					
vi. Other, please specify.	N/A	· N/A	N/A	N/A	N/A
7. Piping					
A. Manufacturer and Model	Unknown	Unknown	Unknown	Unknown	Unknown
B. Underwriters Laboratory No.	Unknown	Unknown	Unknown	Unknown	Unknown

Tank Number	Tank No. <u>F-16</u>	Tánk No. <u>F-17</u>	Tank No. <u>F-18</u>	Tank No. F-19	Tank No. F-20
C. Primary Containment Material or	Single-Walled Piping			dana makani dana dana dana dana dana dana dana d	uttervenininn ilmeni vessii kulkuunuun moinin sistäisittä kuttaasiasaala
i. Fiberglass reinforced plastic					
ii. Flex piping					
iii. Steel	V	√	✓	✓	V
iv. Other, please specify.	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground
D. Secondary Containment Materia	I				
i. Fiberglass reinforced plastic					
ii. Flex piping					
iii. Lined trench					
iv. Other, please specify.					
v. None	✓	✓	✓	✓	✓
E. Corrosion Protection (except fibe	erglass reinforced plastic	piping)			
i. Fiberglass coated steel					
ii. Impressed current system					
iii. Sacrificial anode system					
iv. Corrosion expert determinat	tion				
v. Other, please specify.	N/A	N/A	N/A	N/A	N/A
8. Method of Product Dispensing					
A. Unsafe Suction (valve at tank)					
B. Safe Suction (no valve at tank)					
C. Pressure	✓	\checkmark	V	✓	✓
D. Not Applicable					
9. Spill prevention equipment					
A. Manufacturer and Model	N/A	N/A	N/A	N/A	N/A
B. Capacity (gallons)					
10. Overfill prevention equipment	V	V	✓	√	✓
A. Automatic shutoff device (flapper Make and Model	7)				
B. Overfill alarm Make and Model	See cover letter	See cover letter	See cover letter	See cover letter	See cover letter
C. Ball float valve Make and Model					

Tank Number	Tank N	lo. F-16	Tank N	lo. <u>F-17</u>	Tank N	lo. <u>F-18</u>	Tank N	lo. <u>F-19</u>	Tank N	lo. ^{F-20}
11. Release Detection (Mark all that apply)	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. Manual tank gauging		NA		NA		NA		NA		NA
B. Tank tightness testing	✓	NA	V	NA	√	NA		NA	V	NA
C. Inventory control		NA		NA		NA		NA		NA
D. Automatic tank gauging		NA		NA		NA		NA		NA
E. Vapor monitoring										
F. Groundwater monitoring										
G. Interstitial monitoring										
H. Statistical inventory reconciliation										
Automatic line leak detectors (Yes/No)	NA	No	NA	No	NA	No	NA	No	NA	No
If YES, specify type.										
J. Line tightness testing	NA		NA		NA		NA		NA	
K. Other method approved by the Department. Please specify										

Dispenser Unit	Manufacturer of Dispenser	Dispenser Serial #	Under Dispenser Containment installed (Yes/No) - Installation Date
1			N/A
2			N/A
3			N/A
4			N/A
5			N/A
6			N/A
7			N/A
8			N/A
9			N/A
10			N/A
11			N/A
12			N/A

Facility ID	No.	9-102271

-	I. FINANCIAL KLSF	ONSIBILITY (C	neck all that app	ly)			
Commercial Insurance	Letter of Credi	Пь	cal Government Bo	nd Rating Test			
Financial Test of Self Insurance	Surety Bond						
Guarantee	Trust Fund		empt: State or		псу		
	IX. FA	CILITY DRAWIN	IG				
Include a drawing showing the general scale. This drawing should show the for A. The property boundaries of the B. Identification of streets, roads C. Identification of nearby facilities D. Tax Map Key (TMK) Numbers E. Location of buildings at the fact F. The approximate dimensions G. Location of all USTs and disposed by Sections XI and XII), and ass H. Indication of North/South directions	ollowing: e facility; and nearby bodies of es; es; cility; of the property boundarieser pumps (identified sociated pipings; and	water; ries and major bui	dings;				
Include a map showing the location of the level of detail such that the site would be	the tanks with respect to e easily located.	open en e	s. The map should		d landmarks to a		
XI. DESCRI	PTION OF TANK(S)	e de orde I montre a mestranscere	kan alam Taras eko da est nazar sekas kirê. Ji	location)			
Tank Number	Tank No.	-ST1 Tank No. F-			Pinelines I ocated		
A CAN			Tank No. F-ST	Tank No. F-ST4	Pipelines Located Outside Tunnel		
Status of Tank (Mark only one)			Tank No. F-ST				
Status of Tank (Mark only one) A. Currently in Use			Tank No. F-ST	Tank No. F-ST4			
Status of Tank (Mark only one)			Tank No. F-ST				
Status of Tank (Mark only one) A. Currently in Use	07/194	✓	Tank No. F-ST0				
Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use		2 07/1942	✓				
Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use Date of Installation (month/year)	07/194	2 07/1942	07/1942	07/1942	Outside Tunnel		
Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use Date of Installation (month/year) Estimated Capacity (gallons)	07/194 400,00 No	2 07/1942 0 400,000	07/1942 400,000	07/1942 400,000	Outside Tunnel		
Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use Date of Installation (month/year) Estimated Capacity (gallons) A. Compartmentalized? Yes/No Estimated compartment capa	07/194 400,00 No	2 07/1942 0 400,000	07/1942 400,000	07/1942 400,000	Outside Tunnel		
Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use Date of Installation (month/year) Estimated Capacity (gallons) A. Compartmentalized? Yes/No Estimated compartment capa (gallons)	07/194 400,00 No	2 07/1942 0 400,000 No	07/1942 400,000 No	07/1942 400,000 No	Outside Tunnel		
Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use Date of Installation (month/year) Estimated Capacity (gallons) A. Compartmentalized? Yes/No Estimated compartment capa (gallons) B. Manifolded? Yes/No	07/194 400,00 No city	2 07/1942 0 400,000 No	07/1942 400,000 No	07/1942 400,000 No	Outside Tunnel		
Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use Date of Installation (month/year) Estimated Capacity (gallons) A. Compartmentalized? Yes/No Estimated compartment capa (gallons) B. Manifolded? Yes/No 4. Substance Stored	07/194 400,00 No city	2 07/1942 0 400,000 No	07/1942 400,000 No	07/1942 400,000 No	31,665 No		
1. Status of Tank (Mark only one) A. Currently in Use B. Temporarily Out of Use 2. Date of Installation (month/year) 3. Estimated Capacity (gallons) A. Compartmentalized? Yes/No Estimated compartment capa (gallons) B. Manifolded? Yes/No 4. Substance Stored A. Gasoline (Specify product grade)	07/194 400,00 No city No	2 07/1942 0 400,000 No	07/1942 400,000 No	07/1942 400,000 No	31,665 No		

Application for an Underground Storage Tank Permit - Form No. 2 Date: July 16, 2018

D. Kerosene

Tank Number	Tank No. ^{F-ST1}	Tank No, F-ST2	Tank No. F-ST3	Tank No. F-ST4	Pipelines Located Outside Tunnel
E. Used Oil/Waste Oil					Outside Turiner
F. JP-4					
G. Non-Petroleum Hazardous Substance (CERCLA name and/or CAS#)	N/A	N/A	N/A	N/A	N/A
H. Mixture of Substances (Please specify)	N/A	N/A	N/A	N/A	N/A
Other, please specify.	F-24	JP-5	F-76	F-76	F-24, F-76, JP-5
Substance Compatible with Tank and Piping? Yes/No	Yes	Yes	Yes	Yes	Yes
6. Tank (Mark all that apply)					
A. Manufacturer and Model	Field- constructed	Field- constructed	Field- constructed	Field- constructed	N/A
B. Underwriters Laboratory No.	N/A	N/A	N/A	N/A	N/A
C. Primary Containment Material or Single-	Walled Tank				
i. Fiberglass reinforced plastic					
ii. Steel	√	√	√	√	
iii. Other, please specify.					
D. Secondary Containment Material		-			
i. Fiberglass reinforced plastic					
ii. Steel					
iii. Other, please specify.	N/A	N/A	N/A	N/A	
iv. None	V	√	7	√	
E. Corrosion Protection (except Fiberglass i	reinforced plastic	tanks)			
i. Fiberglass coated steel					
ii. Double-walled steel					
iii. Impressed current system					
iv. Sacrificial anode system					
v. Corrosion expert determination					
vi. Other, please specify.	N/A	N/A	N/A	N/A	
7. Piping					
A. Manufacturer and Model	Unknown	Unknown	Unknown	Unknown	Unknown
	<u> </u>		-		l

Tank Number	Tank No. F-ST1	Tank No. F-S12	Tank No. F-ST3	Tank No. F-ST4	Pipelines Located Outside Tunnel
C. Primary Containment Material or Single-	Walled Piping				
i. Fiberglass reinforced plastic					
ii. Flex piping					
iii. Steel	✓	V	√	✓	✓
iv. Other, please specify.	Piping is above ground	Piping is above ground	Piping is above ground	Piping is above ground	
D. Secondary Containment Material		·			
i. Fiberglass reinforced plastic					
ii. Flex piping					
iii. Lined trench					
iv. Other, please specify.					
v. None	▼	\	>	$\overline{\ }$	>
E. Corrosion Protection (except fiberglass r	einforced plastic p	piping)			
i. Fiberglass coated steel					
ii. Impressed current system					\checkmark
iii. Sacrificial anode system					
iv. Corrosion expert determination					
v. Other, please specify.	N/A	N/A	N/A	N/A	
8. Method of Product Dispensing					
A. Unsafe Suction (valve at tank)					
B. Safe Suction (no valve at tank)					
C. Pressure					· 🗸
D. Not Applicable	✓	√	✓	✓	
Spill prevention equipment					
A. Manufacturer and Model	N/A	N/A	N/A	N/A	N/A
B. Capacity (gallons)					
10. Overfill prevention equipment	✓	✓	✓	✓	
A. Automatic shutoff device (flapper) Make and Model					
B. Overfill alarm Make and Model	See cover letter	See cover letter	See cover letter	See cover letter	
C. Ball float valve Make and Model					

Tank Number	Tank N	lo, F-ST1	Tank N	lo. FrST2	Tank N	loF-ST3	Tank N	lo. <u>F-ST4</u>		s Located e Tunnel
11. Release Detection (Mark all that apply)	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. Manual tank gauging		. NA		NA		NA		NA		NA
B. Tank tightness testing	V	NA	✓	NA	V	NA	V	NA		NA
C. Inventory control		NA		NA		NA		NA		NA
D. Automatic tank gauging		NA		NA		NA		NA		NA
E. Vapor monitoring										
F. Groundwater monitoring										
G. Interstitial monitoring										
H. Statistical inventory reconciliation										
I. Automatic line leak detectors (Yes/No)	NA	No	NA	No	NA	No	NA	No	NA	N/A
If YES, specify type.										
J. Line tightness testing	NA		NA		NA		NA		NA	✓
K. Other method approved by the Department. Please specify										

Dispenser Unit	Manufacturer of Dispenser	Dispenser Serial #	Under Dispenser Containment installed (Yes/No) - Installation Date
1			N/A
2			N/A
3			N/A
4			N/A
5			N/A
6	- 10-10-101		N/A
7			N/A
8			N/A
9			N/A
10			N/A
11			N/A
12			N/A

Facility ID No.	9-102271
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				annativier (a perioral policie) periori A MANA i provinciale de central de clinica como di color	andresis plus monitorial except and his bloom shiften a critic on earn oil or in the control product					
VIII. FINAN	CIAL RESPONS	SIBILITY (Chec	k all that apply)						
Commercial Insurance	etter of Credit	Local	Government Bond	d Rating Test						
Financial Test of Self Insurance	urety Bond	Other I	Method Allowed (Specify)						
Guarantee Tr	ust Fund	Exemp	ot: State or	Federal Agen	су					
IX. FACILITY DRAWING										
 Include a drawing showing the general layout of the facility. This drawing should be no larger than 11 by 17 inches and preferably to scale. This drawing should show the following: A. The property boundaries of the facility; B. Identification of streets, roads and nearby bodies of water; C. Identification of nearby facilities; D. Tax Map Key (TMK) Numbers; E. Location of buildings at the facility; F. The approximate dimensions of the property boundaries and major buildings; G. Location of all USTs and dispenser pumps (identified by number/s consistent with the tank & dispenser pump numbers in Sections XI and XII), and associated pipings; and H. Indication of North/South direction. 										
Include a map showing the location of the tanks of level of detail such that the site would be easily to XI. DESCRIPTION O	with respect to nea ocated.	matematika france dinklos de senda U. de anglos (C. et a nobel de C. es nobel de C.	etro (sendata la minera da relación de la relación de el regular el mengo de se		I landmarks to a					
	PRT	PRT-	Diamond	Eve						
Tank Number	Tank No. Diamond	Tank No. Ewa .	Tank No. Loop	Tank No. Plping	Tank No					
Status of Tank (Mark only one)					T					
A. Currently in Use B. Temporarily Out of Use										
	07/2010	05/2006	09/2011	06/2006	<u> </u>					
Date of Installation (month/year)										
Sestimated Capacity (gallons) A Compositor and the sestimated and a Vac (Na.) A Compositor and the sestimated and a Vac (Na.) A Compositor and the sestimated and a Vac (Na.)	2,000 No	4,000 No	236,579 No	59,500 No	N/A					
A. Compartmentalized? Yes/No	INO	INO	INO	INO	IN/A					
Estimated compartment capacity (gallons)										
B. Manifolded? Yes/No	No	No	No	No	N/A					
4. Substance Stored										
A. Gasoline (Specify product grade)	N/A	N/A	N/A	N/A	N/A					
B. Diesel										
C. Gasohol (Including ethanol blends) Specify product grade	N/A	N/A	N/A	N/A	N/A					

Application for an Underground Storage Tank Permit - Form No. 2 Date: July 16, 2018 $\,$

D. Kerosene

Tank Number	Tank No. PRT-	Tank No. PRT-	Tank No. Loop	Tank No. Ewa Piping Loop	Tank No
E. Used Oil/Waste Oil	Absolution of the second secon		The state of the s	nadikan dasiliha Alla jarah kalilika da ili da i	The state of the s
F. JP-4					
G. Non-Petroleum Hazardous Substance (CERCLA name and/or CAS#)	N/A	N/A	N/A	N/A	
H. Mixture of Substances (Please specify)	N/A	N/A	N/A	N/A	
I. Other, please specify.	F-24	F-24	F-24	F-24	
Substance Compatible with Tank and Piping? Yes/No	Yes	Yes	Yes	Yes	N/A
6. Tank (Mark all that apply)	WALLES TO SERVICE THE SERVICE				
A. Manufacturer and Model	Steel Tank Institute/STI-P3	Steel Tank Institute/STI-P3	N/A	N/A	
B. Underwriters Laboratory No.	UL-58	UL-58	N/A	N/A	
C. Primary Containment Material or Single-	Walled Tank				
i. Fiberglass reinforced plastic					
ii. Steel	√	√			
iii. Other, please specify.	N/A	N/A	N/A	N/A	
D. Secondary Containment Material					
i. Fiberglass reinforced plastic					
ii. Steel	V	√			
iii. Other, please specify.	N/A	N/A			
iv. None					
E. Corrosion Protection (except Fiberglass	reinforced plastic	tanks)			·
i. Fiberglass coated steel					
ii. Double-walled steel	V	√			
iii. Impressed current system	V	√			
iv. Sacrificial anode system					
v. Corrosion expert determination					
vi. Other, please specify.	N/A	N/A			
7. Piping					
A. Manufacturer and Model	Unknown	Unknown	Unknown	Unknown	
B. Underwriters Laboratory No.	Unknown	Unknown	Unknown	Unknown	

Tank Number	Tank No. Head	PRT- Tank No. Ewa	Diamond Tank No: Loop	Tank No. Flying	Tank No			
C. Primary Containment Material or Single-Walled Piping								
i. Fiberglass reinforced plastic								
ii. Flex piping								
iii. Steel	\overline{V}	$\overline{\checkmark}$	$\overline{\checkmark}$	V				
iv. Other, please specify.	N/A	N/A	N/A	N/A				
D. Secondary Containment Material								
i. Fiberglass reinforced plastic								
ii. Flex piping								
iii. Lined trench	✓	✓						
iv. Other, please specify.	N/A	N/A	N/A	N/A				
v. None			✓	✓				
E. Corrosion Protection (except fiberglass	einforced plastic p	piping)						
i. Fiberglass coated steel								
ii. Impressed current system	✓	✓	✓	√				
iii. Sacrificial anode system								
iv. Corrosion expert determination								
v. Other, please specify.	N/A	N/A	N/A	N/A				
8. Method of Product Dispensing								
A. Unsafe Suction (valve at tank)								
B. Safe Suction (no valve at tank)								
C. Pressure			✓	✓				
D. Not Applicable	V	√						
Spill prevention equipment								
A. Manufacturer and Model	N/A	N/A	N/A	N/A				
B. Capacity (gallons)								
10. Overfill prevention equipment	✓	V						
A. Automatic shutoff device (flapper) Make and Model								
B. Overfill alarm Make and Model	Veeder-Root TLS-350 PLUS	Veeder-Root TLS-350 PLUS						
C. Ball float valve Make and Model								

Tank Number	Tank N	PRT- Diamond Head	Tank N	PRT O, Ewa	Tank N	Diamond Head Piping 10 . Loop	Tank N	O. Ewa Piping	Tank N	lo
11. Release Detection (Mark all that apply)	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE	TANK	PIPE
A. Manual tank gauging		NA		NA		NA		NA		NA
B. Tank tightness testing		NA		NA		NA		NA		NA
C. Inventory control		NA		NA		NA		NA		NA
D. Automatic tank gauging		NA		NA		NA		NA		NA
E. Vapor monitoring										
F. Groundwater monitoring										
G. Interstitial monitoring	V		✓							
H. Statistical inventory reconciliation										
I. Automatic line leak detectors (Yes/No)	NA	No	NA	No	NA	N/A	NA	N/A	NA	N/A
If YES, specify type.										
J. Line tightness testing	NA	V	NA	✓	NA	√	NA	✓	NA	. 🔲
K. Other method approved by the Department. Please specify	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Dispenser Unit	Manufacturer of Dispenser	Dispenser Serial #	Under Dispenser Containment installed (Yes/No) - Installation Date
1			N/A
2			N/A
3			N/A
4			N/A
5			N/A
6			N/A
7			N/A
8			N/A
9			N/A
10			N/A
11			. N/A
12			N/A

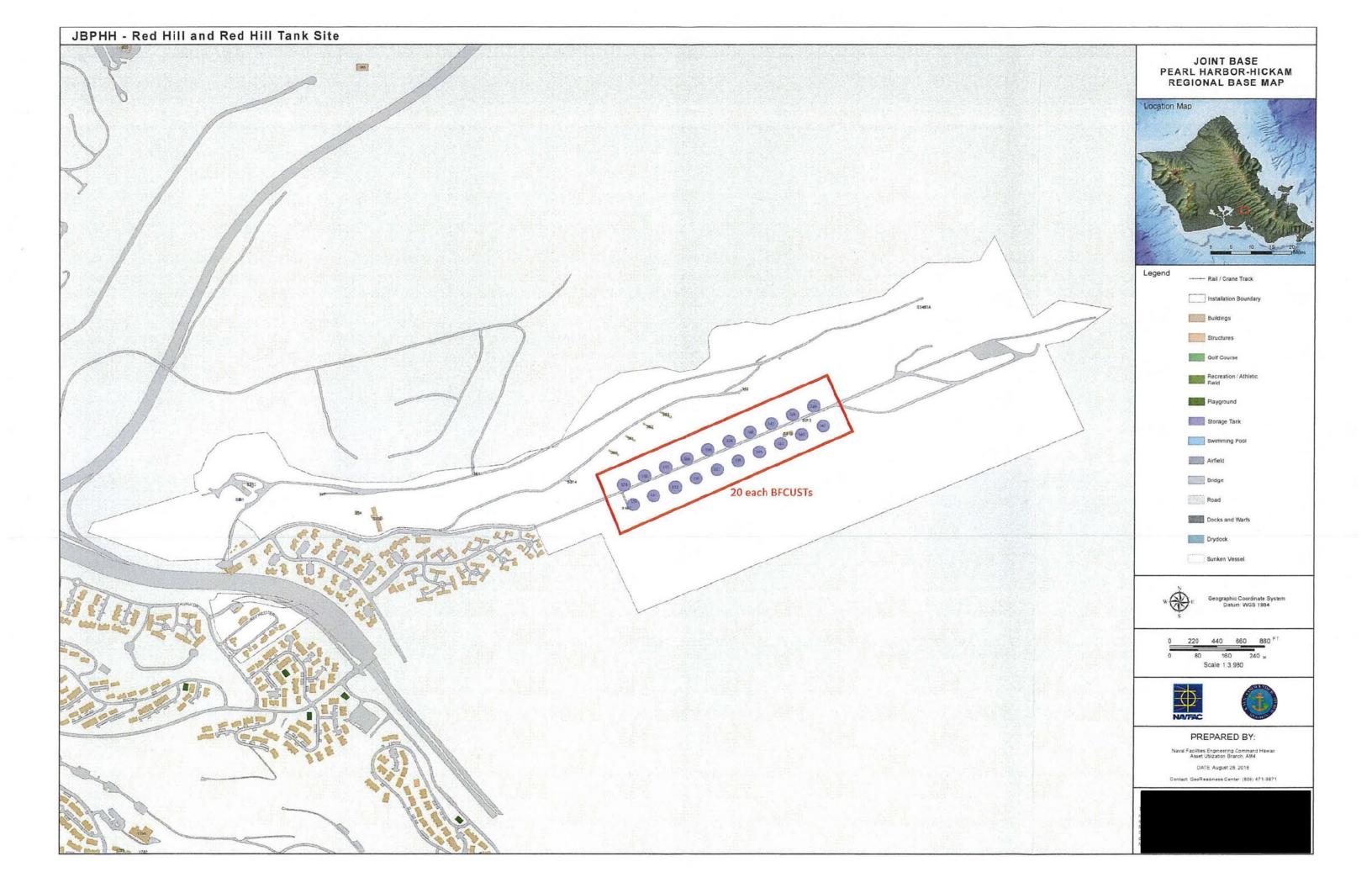
XIII. OPERATOR'S CERTIFICATION (Read and sign after completing all sections)

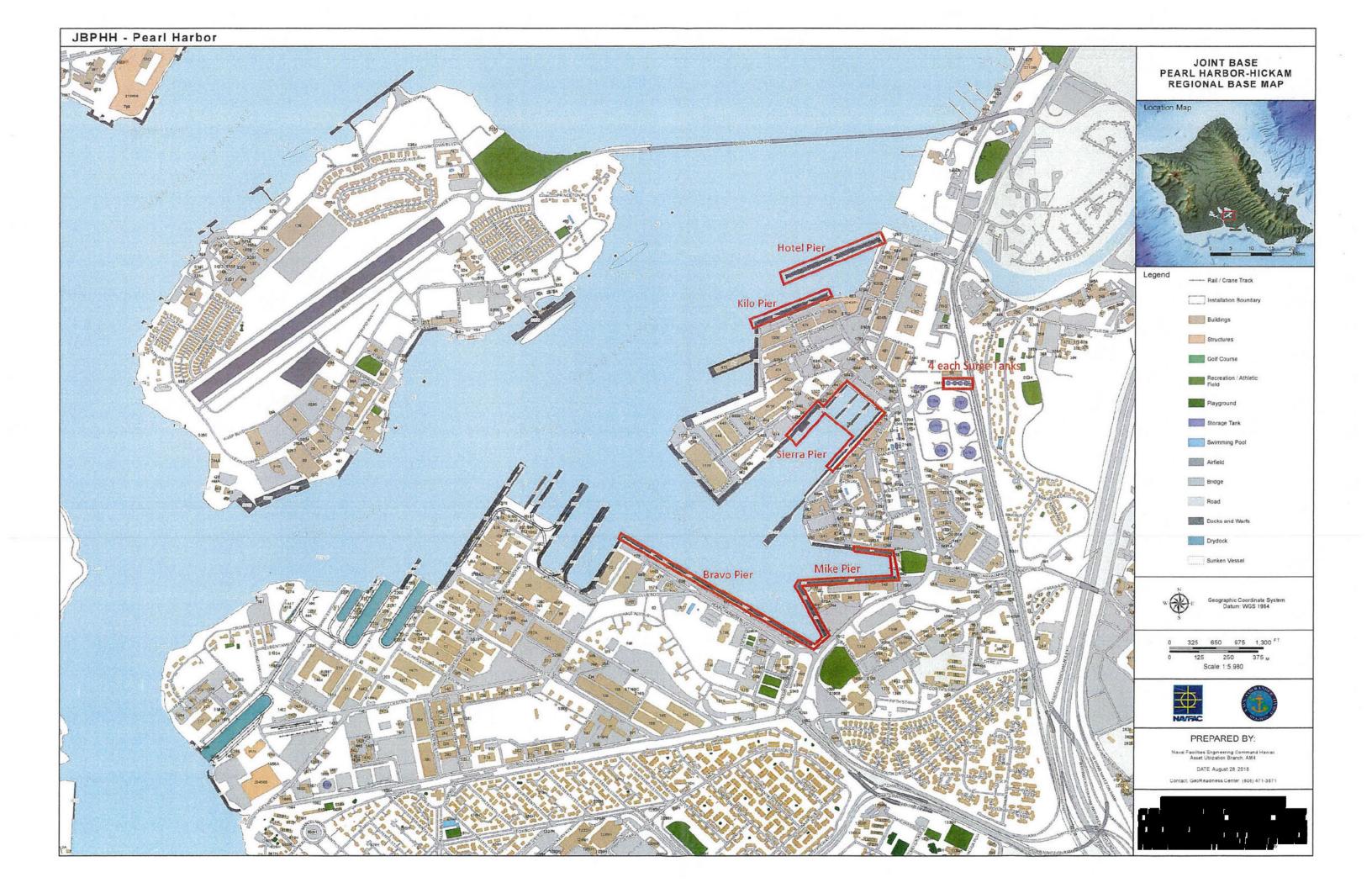
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

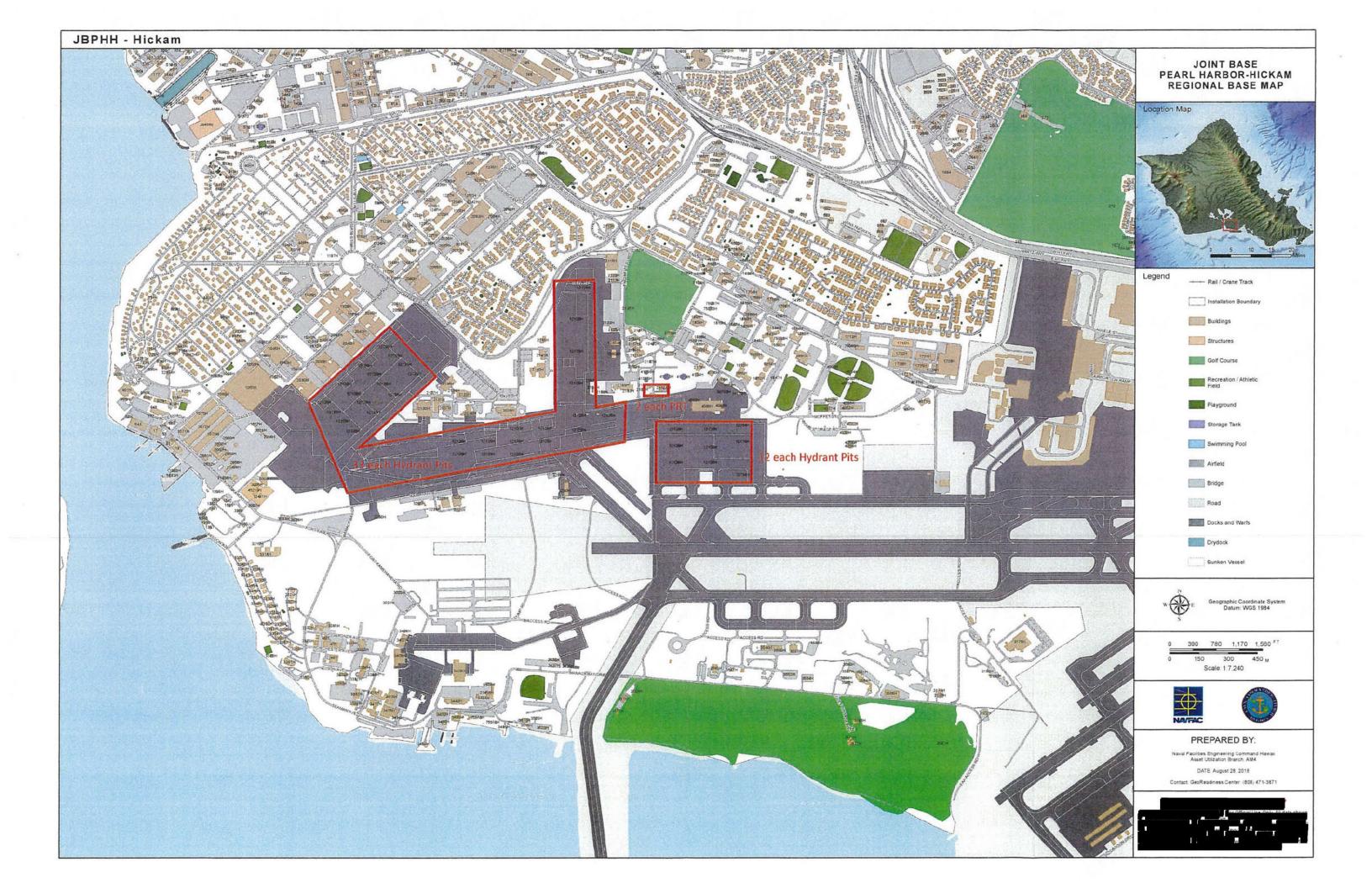
	(b) (6)		Regional Fuels Officer		
Name of oper	ator or operator's authorized	representative (Print or Type)	Official Title / S M / / 9 Date Signed		
Status of Sign	natory (Mark as appropriate)				
1.	Corporation:	☐ principal executive officer☐ duly authorized representative			
2.	Partnership:	general partner			
3.	Sole proprietorship:	proprietor			
4.	Government entity:	principal executive officer			
		ranking elected official			
		☑duly authorized employee			
documents, a	nd that based on my inquironmation is true, accurate, an	y of those individuals immediately responsible d complete.	he information submitted in this and all attached e for obtaining the information, I believe that the Regional Engineer		
Name of owner or owner's authorized representative (Frint or Type)					
Name of owne	er or owner's authorized repr	esentative (Print or Type)	Official Title 15 May 19		
Signature			Date Signed		
Status of Sign	natory (Mark as appropriate)				
1.	Corporation:	☐principal executive officer☐duly authorized representative			
2.	Partnership:	☐general partner			
3.	Sole proprietorship:	proprietor			
4.	Government entity:	✓principal executive officer □ranking elected official □duly authorized employee			

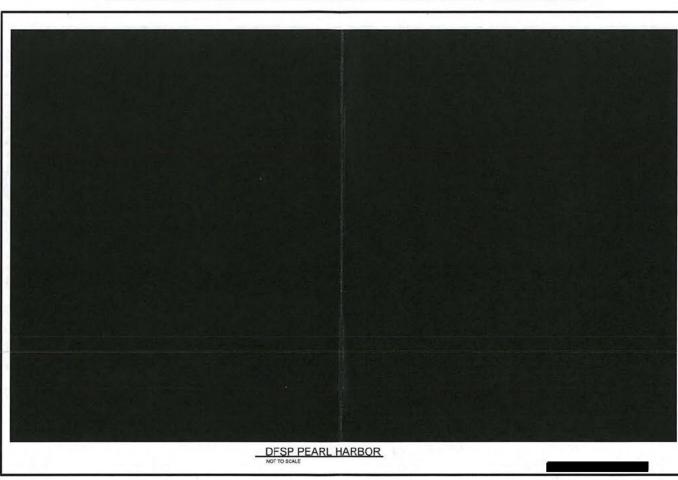
CNRH LETTER 5750 SER N4/0533 OF MAY 15, 2019 IS INCORORATED BY REFERENCE AND MADE A PART OF THIS APPLICATION

Enclosure 2

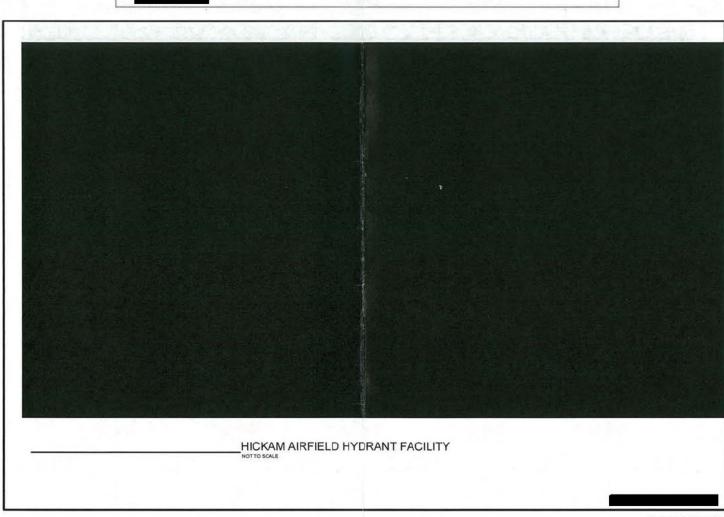




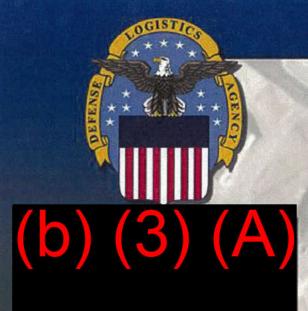




Date: 23 Feb 2017



Date: 23 Feb 2017



2019 ANNUAL LEAK DETECTION TESTING REPORT OF SECTIONS ((b) (3) (A) OF PETROLEUM PIPELINES

JOINT BASE PEARL HARBOR -HICKAM, HAWAII

Prepared for:
Defense Logistics Agency Energy
Fort Belvoir, Virginia

Prepared under:

Naval Facilities Engineering Command Atlantic Contract N62470-16-D-9007, Delivery Order N6247019F4016

Submitted by:

Michael Baker International Virginia Beach, Virginia

Date:

14 March 2019

Michael Baker

Project: 170482 Task: 4.1.071A

EXECUTIVE SUMMARY

The purpose of this project is to perform the annual leak detection testing of sections ((b) (3) (A)) of petroleum pipelines at Joint Base Pearl Harbor-Hickam, Hawaii. At Hickam Air Field Facility and NS Pearl Harbor Facility, testing of sections ((b) (3) (A)) of petroleum pipelines, associated with underground storage tank systems, is performed in accordance with Hawaii Administrative Rules, Title 11, Chapter 280.1 (HAR 11-280.1), Subchapter 4, §11-280.1-44(4)(A)(i). At NS Pearl Harbor Facility, testing of six sections (3,305 feet) of petroleum pipelines, associated with aboveground storage tank systems, is performed in accordance with Defense Logistics Agency (DLA) Energy's Leak Detection Centrally Managed Program (CMP) as a pollution prevention Best Management Practice (BMP).

Upon mobilization and system review, the sections (b) (3) (A) were revised as follows:

- The following sections (b) (3) (A)t) were not tested due to being temporarily out-of-service:
 - \circ $VS^{[0](3)} VC^{[0](3)}$ ((b) (3) (A)
 - o $Tank 55 Valve \stackrel{\text{\tiny (b)} (3)}{\sim} ADIT \stackrel{\text{\tiny (b)}}{\sim} PH \stackrel{\text{\tiny (b)} (3)}{\sim} PH$
 - o $Tank 54 VS^{(0)(8)(A)}$
 - \circ Truck Rack VC $^{(0)(3)(4)}$
 - $\circ VS^{[0]3} VC^{[0]3]} (FORFAC) (b) (3) (A)$
- The length of one section (Truck Fill Loop) was permanently decreased from (b) (3) (A)
 due to a new isolation valve being installed.
- One section (*Hickam Transfer VS Filter Pad*) was temporarily separated and tested as two sections (*Hickam Transfer VS IVP IVP* and *Hickam Transfer IVP Filter Pad*).

The final 2019 annual leak detection testing event included sections (b) (3) (A) of petroleum pipelines.

The annual leak detection testing of sections ((b) (3) (A)) of petroleum pipelines was performed, between 8 and 28 January 2019, with no detectable leak above the test methods' minimum detectable leak rates (MDLRs), resulting in passing tests. The annual leak detection testing of the remaining one section, $Tank\ 47 - VS$ (b) (3) (A), of petroleum pipeline was performed, on 24 January 2019, with a detectable leak above the test method's MDLR, resulting in a failing test. A leak confirmation/leak locate is being performed under a separate project.

In accordance with HAR 11-280.1-44(4)(A)(i), leak detection testing of the following three sections (6)(3)(A)
of petroleum pipelines must be performed prior to returning to service:

- VS (0) (3) (A VC (0) (3) (A)
- Tank 55 Valve (b) (3) (A) ADIT PH (b) (3) (A)
- Tank 54 VS (b) (3) (A)

In accordance with DLA Energy's Leak Detection CMP, as a pollution prevention BMP, leak detection testing of the following two sections ((b) (3) (A)) of petroleum pipelines should be performed prior to returning to service.

- Truck Rack − VC ^{□13 (A)}
- VS (b) (3) (A)

In accordance with HAR 11-280.1-44(4)(A)(i), semi-annual leak detection testing of the following four sections ((b) (3) (A)et) of petroleum pipelines, must be initiated on or before the semi-annual anniversary date of 10 July 2019 due to the MDLRs exceeding the maximum leak detection rate per section volume in accordance with HAR for annual testing.

- Hydrant Issue Type III PH to IVP and to HSV Issue (b) (3) (A)
- Hydrant Return IVP to Type III PH (b) (3) (A)
- Hydrant Issue IVF to IVP (10)
- AMC Hydrant Loop Outlet Row
 O

In accordance with HAR 11-280.1-44(4)(A)(i), annual leak detection testing of petroleum pipelines must be initiated on or before the anniversary date of 8 January 2020.

In accordance with DLA Energy's Leak Detection CMP, as a pollution prevention BMP, the annual leak detection testing of sections (b) (3) (A) of petroleum pipelines should be initiated on or before the anniversary date of 17 January 2020.

The semi-annual testing will be repeated in 2019 and the annual testing will be repeated in 2020 under the DLA Energy's Leak Detection CMP, in accordance with HAR 11-280.1-44(4)(A)(i) and as a pollution prevention BMP; other regulatory obligations are the responsibility of the base and the service.

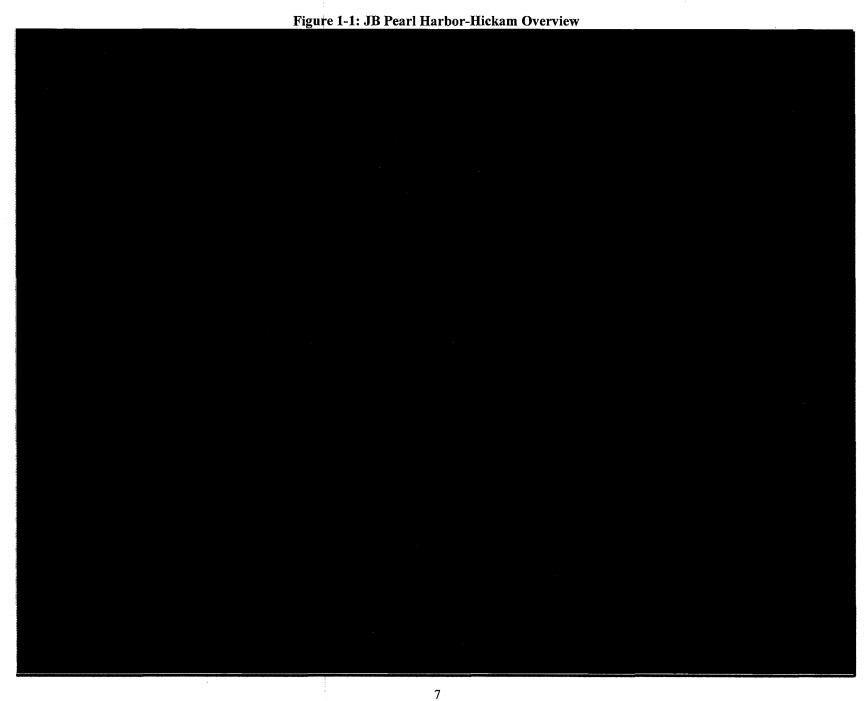


Figure 1-2: Hickam Air Field Facility Storage Overview



Figure 1-3: Hickam Air Field Facility AMC Hydrants Overview

Figure 1-4: Hickam Air Field Facility Type III Hydrants Overview

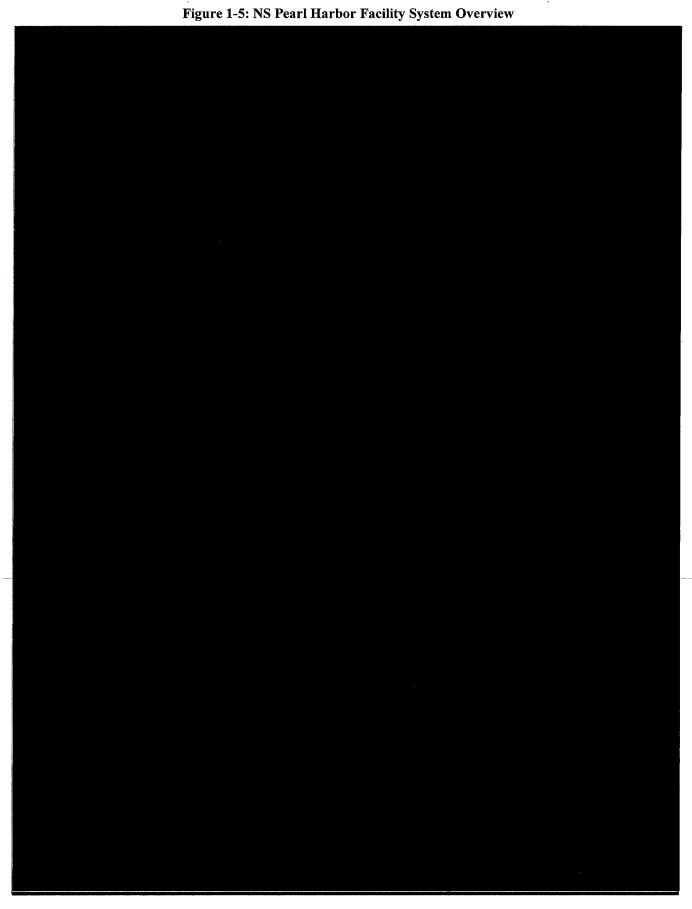


Figure 1-6: Red Hill (ADIT 3) Facility System Overview

12

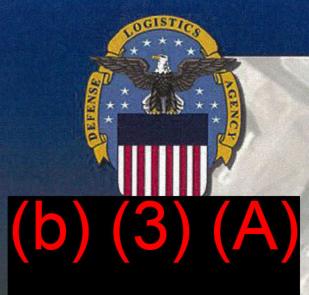
1.5	Project Team		
1.6	Qualifications of Testing Procedure	es Used	
			: :
•			

Table 2-1: Results Summary: Hickam Air Field Facility

Fuel System	Test Section	Designation ¹	Product	Length (Feet)	Volume (Gallons)	Reference Pressure ² (psi)	Certified MDLR ³ (gph)	Test Date	Resul
	Ī								
				,					

Table 2-2: Results Summary: NS Pearl Harbor Facility

Fuel System	Test Section	Designation ^{1,2}	Product	Length (Feet)	Volume (Gallons)	Reference Pressure ³ (psi)	Certified MDLR ⁴ (gph)	Test Date	Result
									•
		:							i .



2019 ANNUAL STATIC LIQUID PRESSURE TESTING REPORT OF (b) (3) (A) SECTIONS (b) (3) (A) OF PETROLEUM PIER PIPELINES

JOINT BASE PEARL HARBOR -HICKAM, HAWAII

Prepared for:
Defense Logistics Agency Energy
Fort Belvoir, Virginia

Prepared under:

Naval Facilities Engineering Command Atlantic Contract N62470-16-D-9007, Delivery Order N6247019F4016

Submitted by:

Michael Baker International Virginia Beach, Virginia

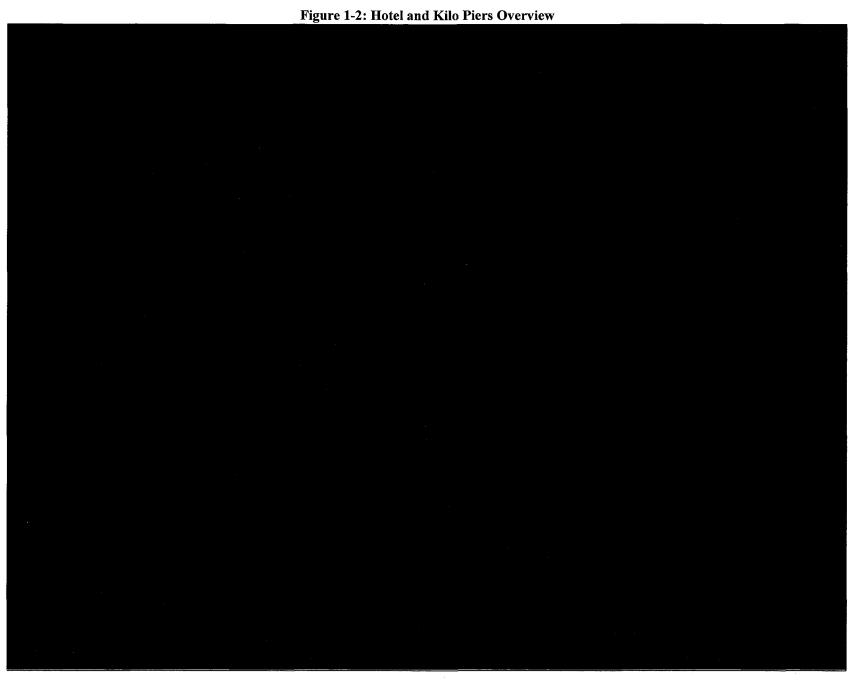
Date:

18 March 2019

Michael Baker

Project: 170482 Task: 4.1.076

Figure 1-1: JB Pearl Harbor-Hickam Overview



1.5	Project Team		
1.6	Qualifications of Tester and Testing Procedures U	sed	
ı			
		,	
	-		
	_		

Table 2-1: Results Summary

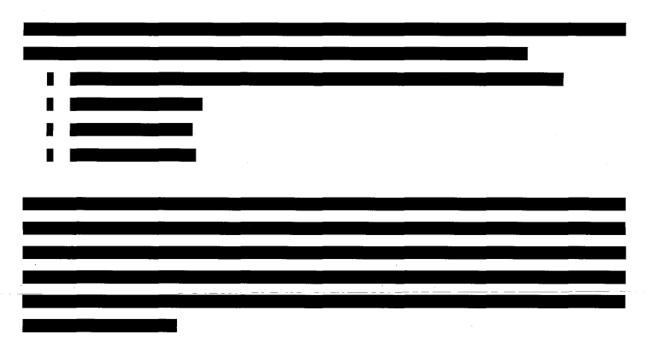
Fuel System	Designation	Product	Length (feet)	Volume (gallons)	Reference Pressure ¹ (psi)	Test Date	Result	Comments
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		-						
								. ==

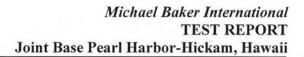
3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 <u>Conclusions</u>

The three sections (b) (3) (A) of petroleum pier pipelines passed the 2019 annual static liquid pressure testing. Four sections (b) (3) (A) of petroleum pier pipelines were not tested.

3.2 Recommendations







APPENDIX A

CITED REGULATIONS

under §§ 154.710 and 155.700 of this chapter, has filled out and signed the declaration of inspection form described in paragraph (c) of this section.

- (b) No person in charge may sign the declaration of inspection unless he or she has determined by inspection, and indicated by initialling in the appropriate space on the declaration of inspection form, that the facility or vessel, as appropriate, meets § 156.120.
- (c) The declaration of inspection may be in any form but must contain at least:
- (1) The name or other identification of the transferring vessel or facility and the receiving vessel or facility;
- (2) The address of the facility or location of the transfer operation if not at a facility;
- (3) The date and time the transfer operation is started;
- (4) A list of the requirements in §156.120 with spaces on the form following each requirement for the person in charge of the vessel or facility to indicate by initialling that the requirement is met for the transfer operation; and
- (5) A space for the date, time of signing, signature, and title of each person in charge during transfer operations on the transferring vessel or facility and a space for the date, time of signing, signature, and title of each person in charge during transfer operations on the receiving facility or vessel certifying that all tests and inspections have been completed and that they are both ready to begin transferring product; and
- (6) The date and time the transfer operation is completed.
- (d) The form for the declaration of inspection may incorporate the declaration-of-inspection requirements under 46 CFR 35.35-30.
- (e) The vessel and facility persons in charge shall each have a signed copy of the declaration of inspection available for inspection by the COTP during the transfer operation.
- (f) The operators of each vessel and facility engaged in the transfer operation shall retain a signed copy of the declaration of inspection on board the

vessel or at the facility for at least 1 month from the date of signature.

[CGD 75-124, 45 FR 7177, Jan. 31, 1980, as amended by CGD 86-034, 55 FR 36256, Sept. 4, 1990; CGD 93-056, 61 FR 41461, Aug. 8, 1996]

§ 156.160 Supervision by person in charge.

- (a) No person may connect or disconnect a hose, top off a tank, or engage in any other critical procedures during the transfer operation unless the person in charge, required by §156.120(s), supervises that procedure.
- (b) No person may start the flow of oil or hazardous material to or from a vessel unless instructed to do so by either person in charge.
- (c) No person may transfer oil or hazardous material to or from a vessel unless each person in charge is in the immediate vicinity and immediately available to the transfer personnel.

[CGD 75-124, 45 FR 7177, Jan. 31, 1980, as amended by CGD 86-034, 55 FR 36256, Sept. 4, 1990]

§ 156.170 Equipment tests and inspections.

- (a) Except as provided in paragraph (d) of this section, no person may use any equipment listed in paragraph (c) of this section for transfer operations unless the vessel or facility operator, as appropriate, tests and inspects the equipment in accordance with paragraphs (b), (c) and (f) of this section and the equipment is in the condition specified in paragraph (c) of this section.
- (b) During any test or inspection required by this section, the entire external surface of the hose must be accessible.
- (c) For the purpose of paragraph (a) of this section:
- (1) Each nonmetallic transfer hose must:
- (i) Have no unrepaired loose covers, kinks, bulges, soft spots or any other defect which would permit the discharge of oil or hazardous material through the hose material, and no gouges, cuts or slashes that penetrate the first layer of hose reinforcement as defined in §156.120(i).
- (ii) Have no external deterioration and, to the extent internal inspection

is possible with both ends of the hose open, no internal deterioration;

(iii) Not burst, bulge, leak, or abnormally distort under static liquid pressure at least 1½ times the maximum allowable working pressure; and

- (iv) Hoses not meeting the requirements of paragraph (c)(1)(i) of this section may be acceptable after a static liquid pressure test is successfully completed in the presence of the COTP. The test medium is not required to be water.
- (2) Each transfer system relief valve must open at or below the pressure at which it is set to open:
- (3) Each pressure gauge must show pressure within 10 percent of the actual pressure:
- (4) Each loading arm and each transfer pipe system, including each metallic hose, must not leak under static liquid pressure at least 1½ times the maximum allowable working pressure; and
- (5) Each item of remote operating or indicating equipment, such as a remotely operated valve, tank level alarm, or emergency shutdown device, must perform its intended function.
- (d) No person may use any hose in underwater service for transfer operations unless the operator of the vessel or facility has tested and inspected it in accordance with paragraph (c)(1) or (c)(4) of this section, as applicable.
- (e) The test fluid used for the testing required by this section is limited to liquids that are compatible with the hose tube as recommended by the hose manufacturer.
- (f) The frequency of the tests and inspections required by this section must be:
- (1) For facilities, annually or not less than 30 days prior to the first transfer conducted past one year from the date of the last tests and inspections;
- (2) For a facility in caretaker status, not less than 30 days prior to the first transfer after the facility is removed from caretaker status; and
- (3) For vessels, annually or as part of the biennial and mid-period inspections.
- (g) If a facility or vessel collects vapor emitted to or from a vessel cargo tank with a vapor control system, the system must not be used unless the fol-

lowing tests and inspections are satisfactorily completed:

- (1) Each vapor hose, vapor collection arm, pressure or vacuum relief valve, and pressure sensor is tested and inspected in accordance with paragraphs (b), (c), and (f) of this section;
- (2) Each remote operating or indicating device is tested for proper operation in accordance with paragraph (f) of this section:
- (3) Each detonation arrester required by 33 CFR 154.2105, 154.2108(b), 154.2109, 154.2110, 154.2111, and 154.2204, or 46 CFR 39.4003, and each flame arrester required by 33 CFR 154.2103, 154.2105(j), and 154.2203 has been inspected internally within the last year, or sooner if operational experience has shown that frequent clogging or rapid deterioration is likely; and
- (4) Each hydrocarbon and oxygen analyzer required by 33 CFR 154.2105(a) and (j), 154.2107(d) and (e), and 154.2110 or 46 CFR 39.4003 is calibrated:
- (i) Within the previous two weeks, or (ii) Within 24 hours prior to operation when the vapor control system is operated less frequently than once a week.
- (h) Upon the request of the owner or operator, the COTP may approve alternative methods of compliance to the testing requirements of paragraph (c) of this section if the COTP determines that the alternative methods provide an equal level of protection.
- (i) Notwithstanding the general provisions of 33 CFR 156.107(a) relating to the authority of the Captain of the Port to approve alternatives, the owner or operator may request the written approval of the Commandant (CG-ENG), U.S. Coast Guard, 2100 2nd St. SW., Stop 7126, Washington, DC 20593-7126, for alternative methods of compliance to the testing and inspection requirements of paragraph (g)(3) of this section. The Commandant (CG-ENG) will grant that written approval upon determination that the alternative methods provide an equivalent level of safety and protection from fire, explosion, and detonation. Criteria to consider when evaluating requests for alternative methods may include, but are not limited to: operating and inspection history, type of equipment, new



CONTRACT REPORT
CR-NAVFAC EXWC-CI-18134
OCTOBER 2017

CATHODIC PROTECTION OF POL SYSTEMS 2016 ANNUAL SURVEY & REPAIRS

Naval Supply Fleet Logistics Center Pearl Harbor Honolulu, Hawaii

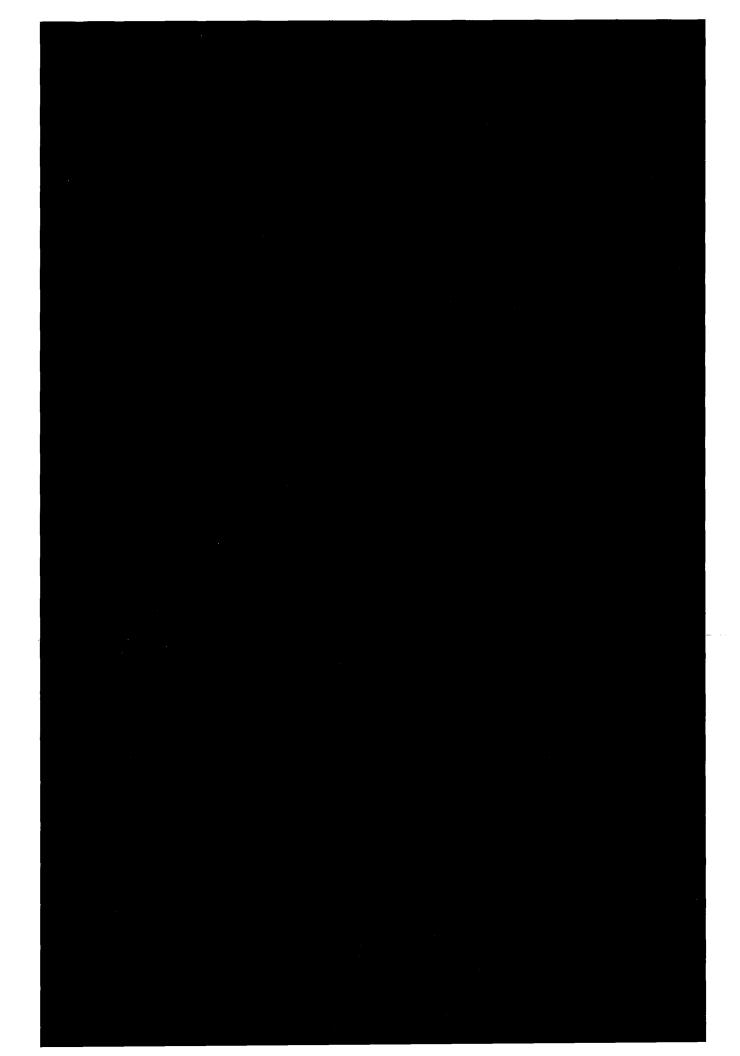
PRL 16-CP RHL 16-CP

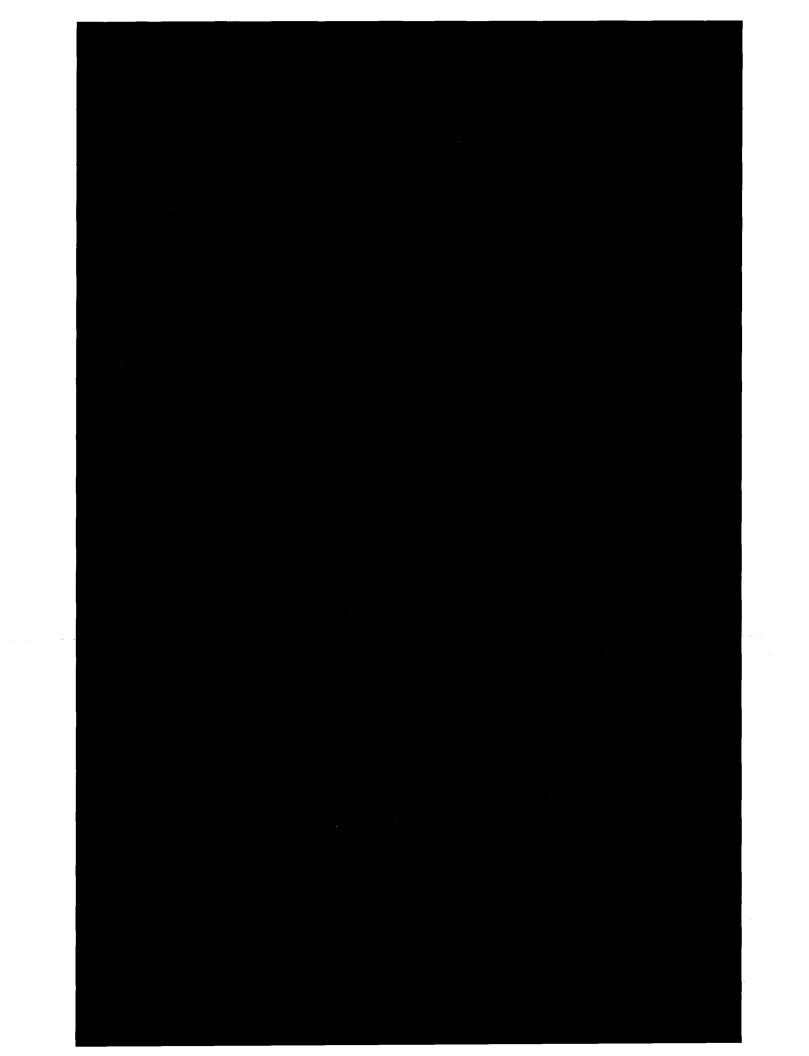
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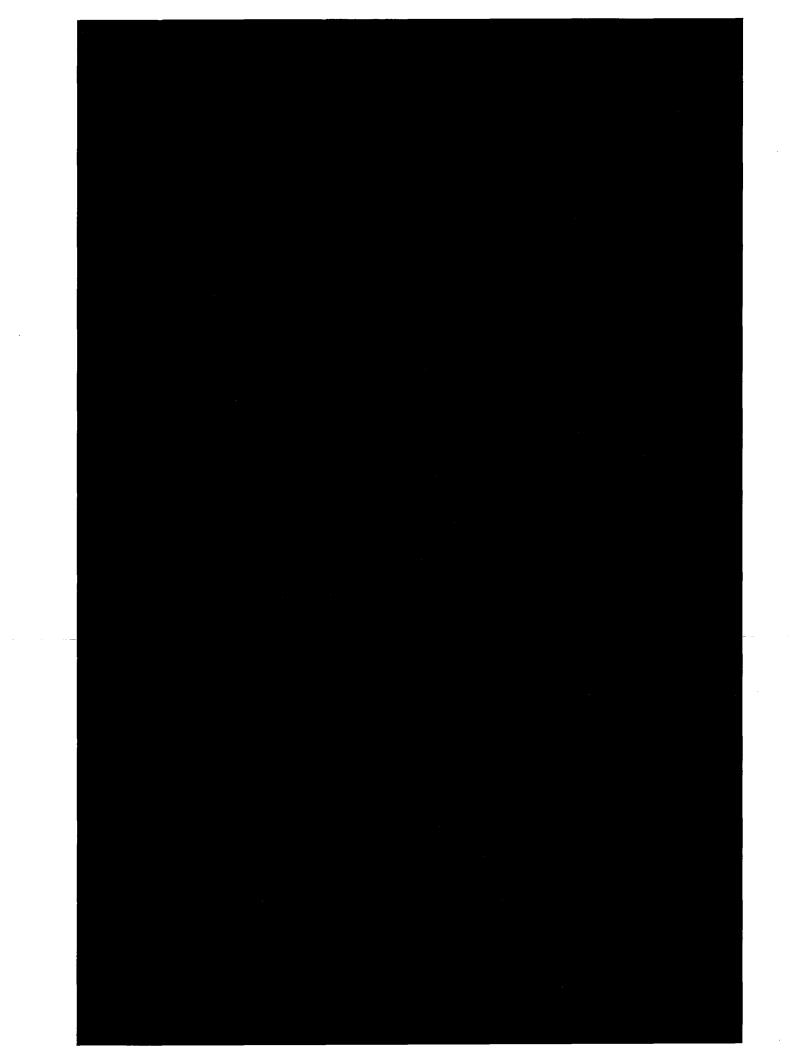
Prepared For:

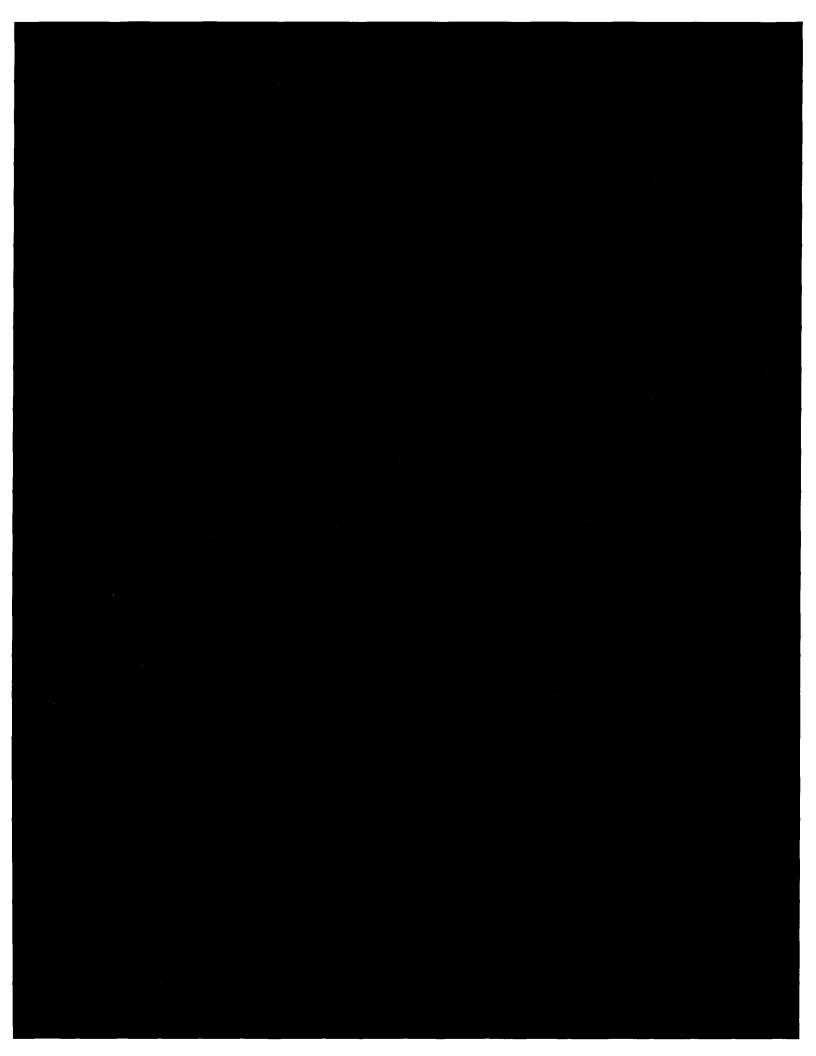
Naval Facilities Engineering and Expeditionary Warfare Center

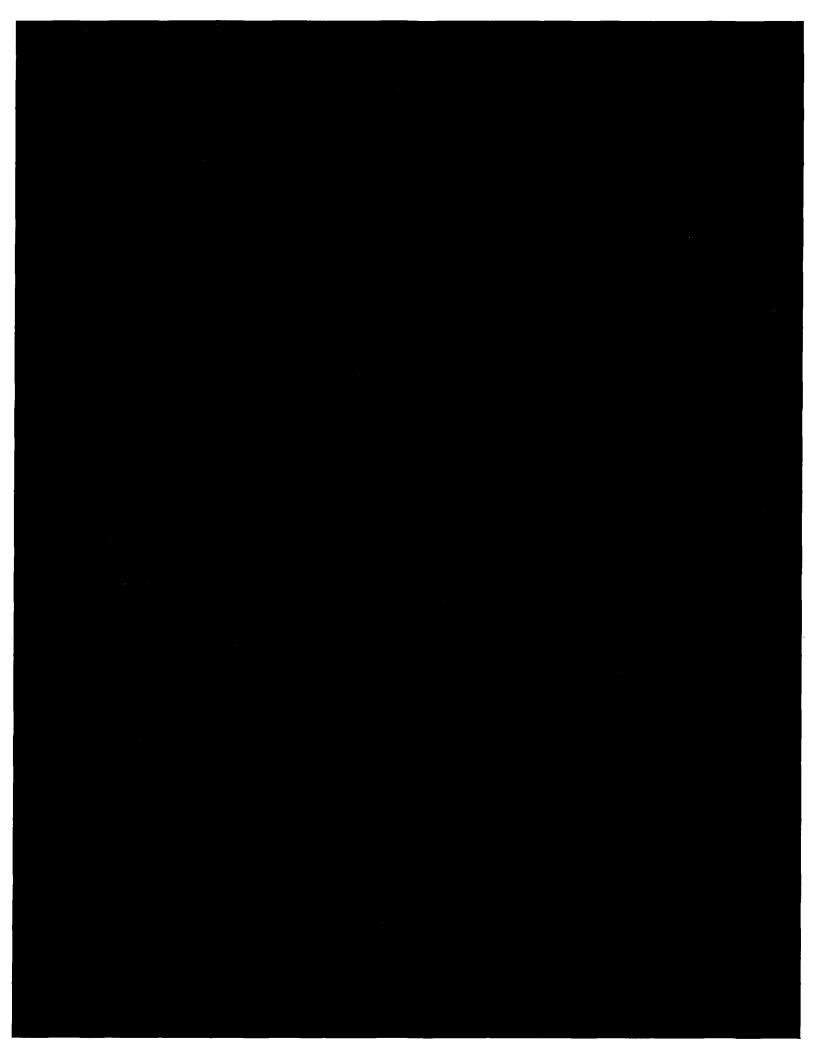
By: Burns & McDonnell 9400 Ward Parkway Kansas City, MO 64114

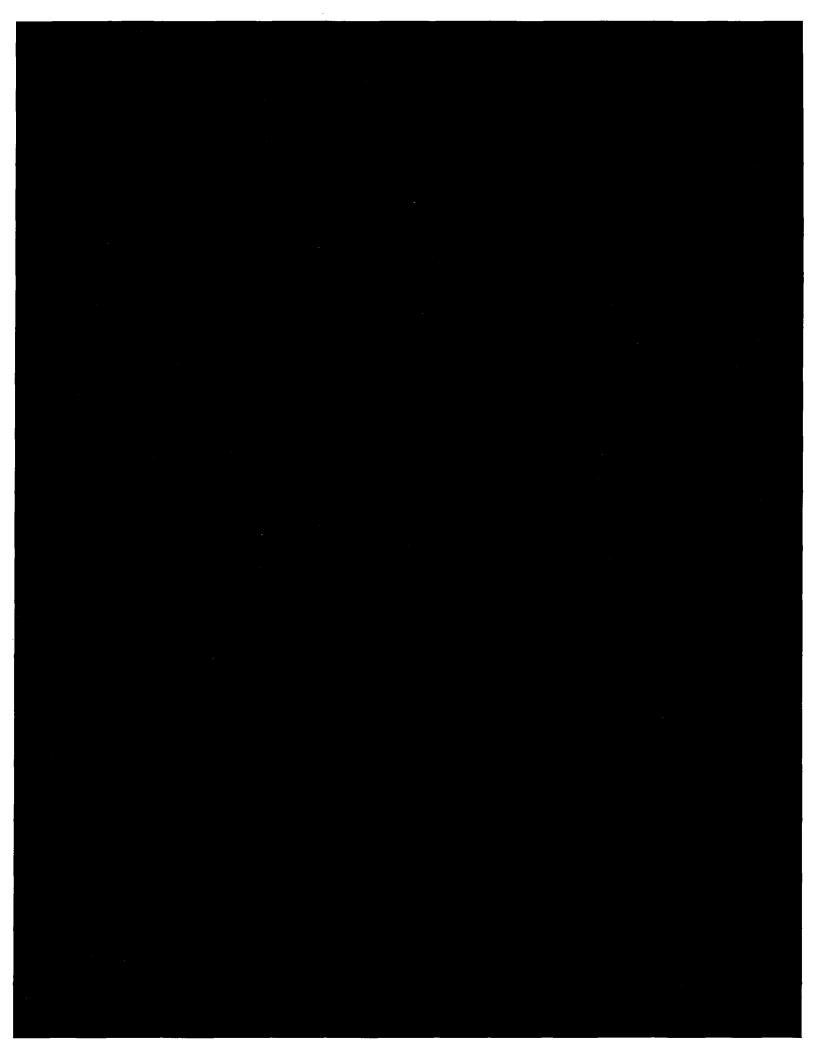


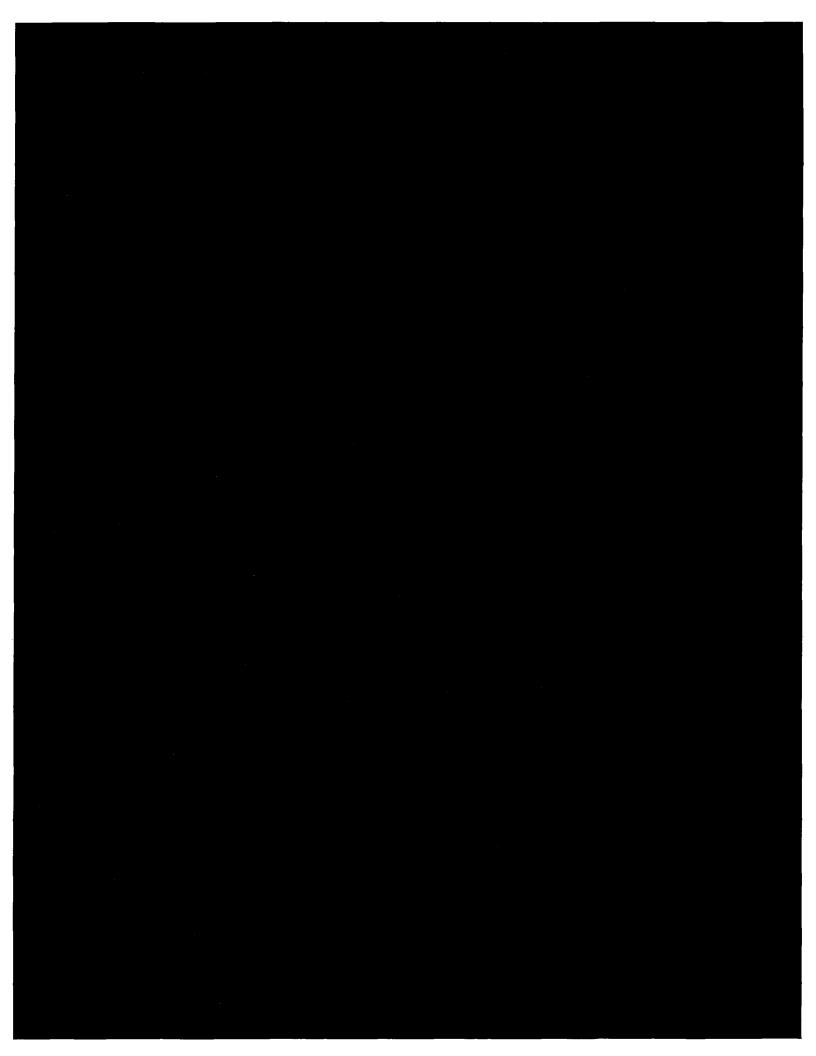


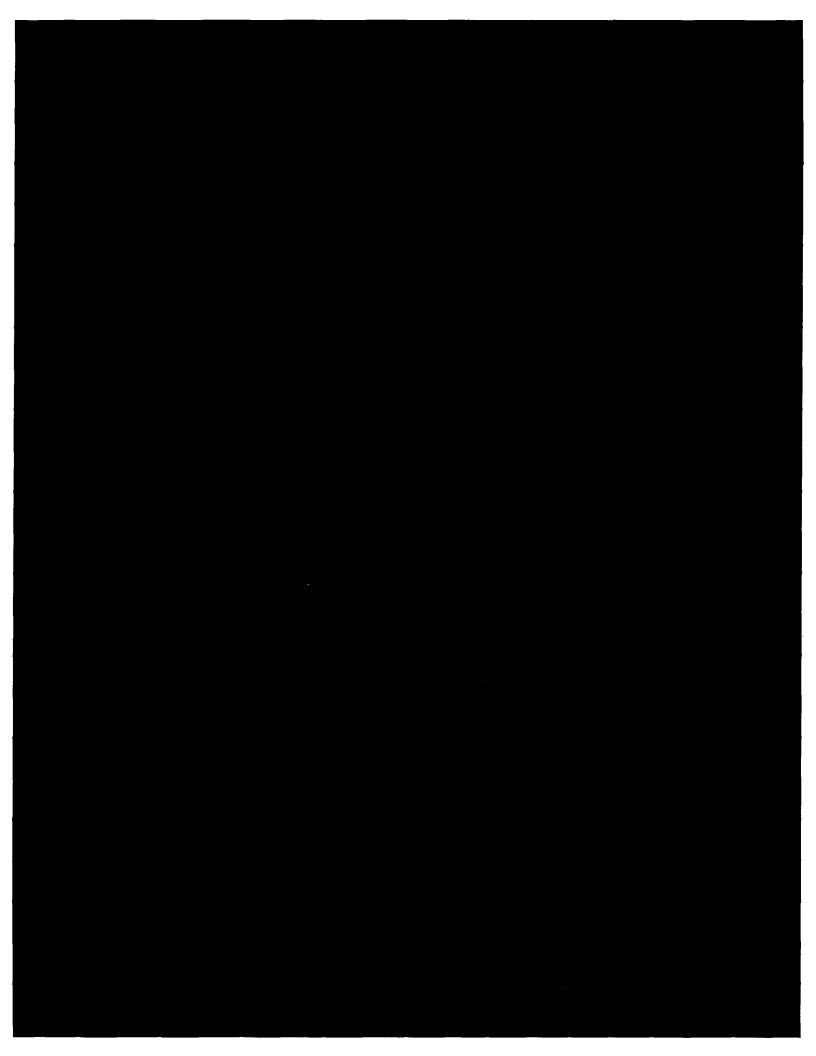


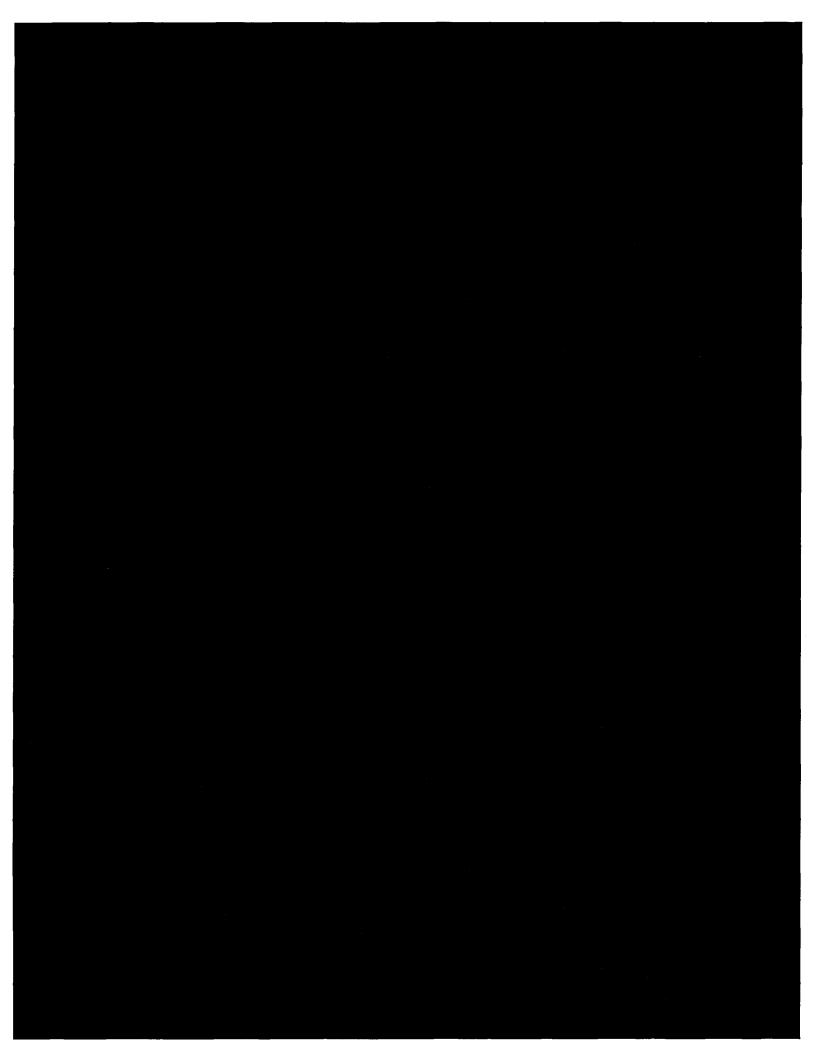


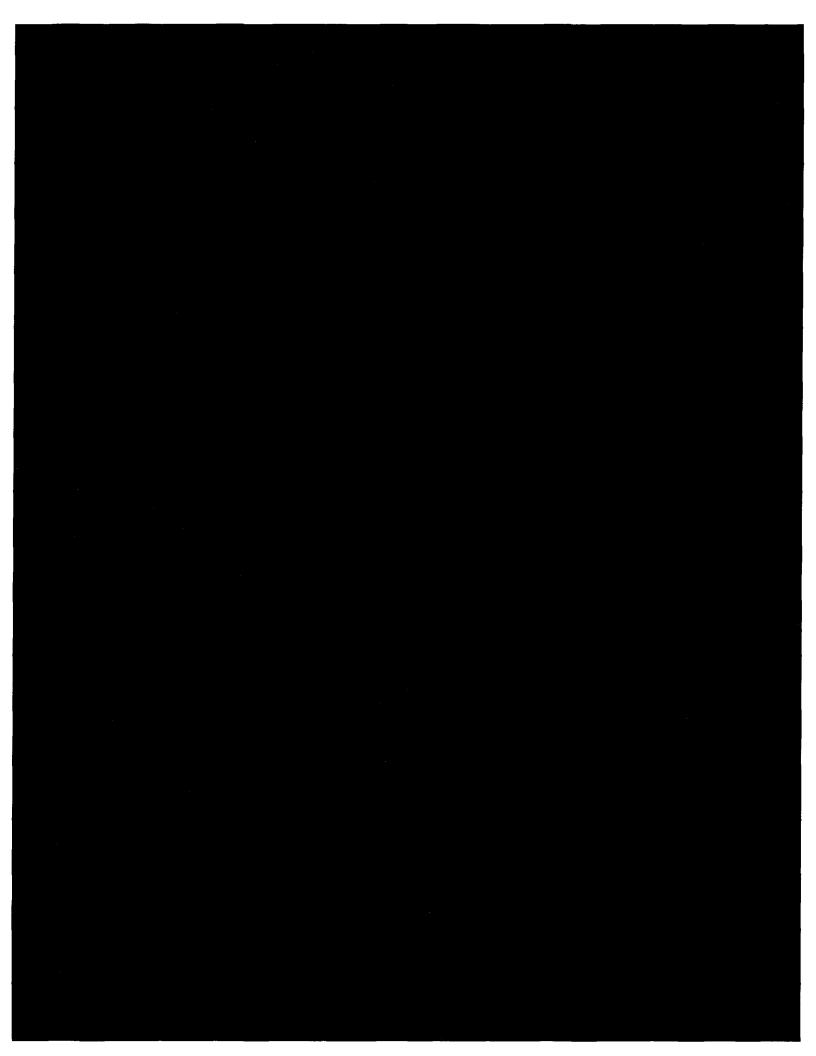


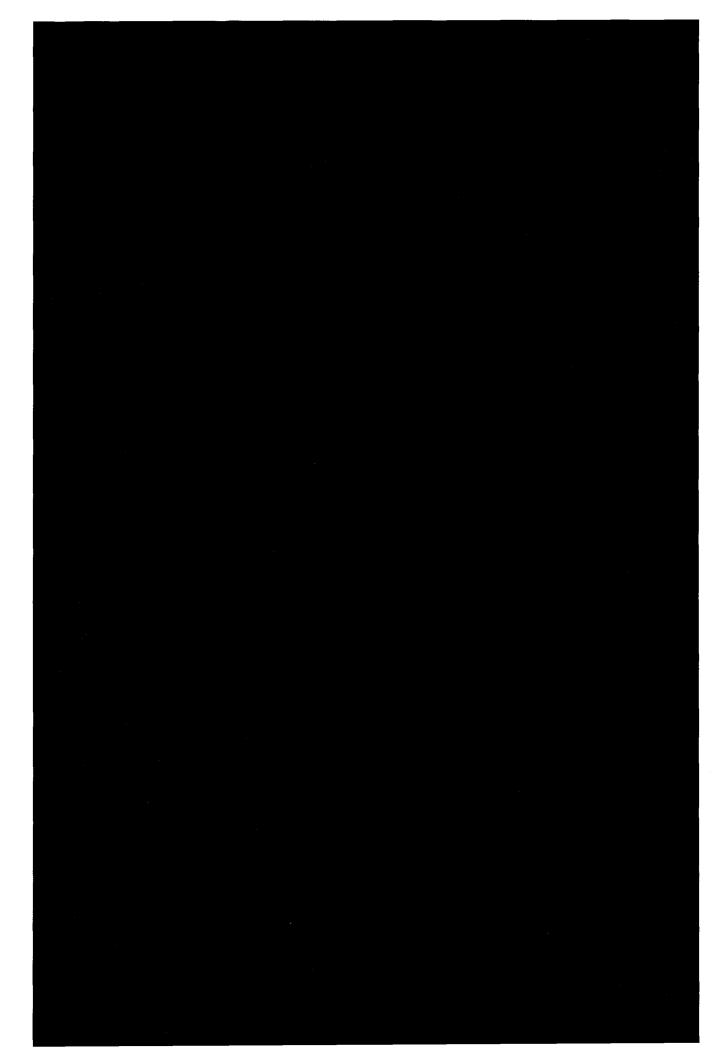














CONTRACT REPORT
CR-NAVFAC EXWC-CI-XXXX

CATHODIC PROTECTION OF POL SYSTEMS
2018 ANNUAL SURVEY & REPAIRS
Naval Supply Fleet Logistics Center Pearl Harbor
Honolulu, Hawaii

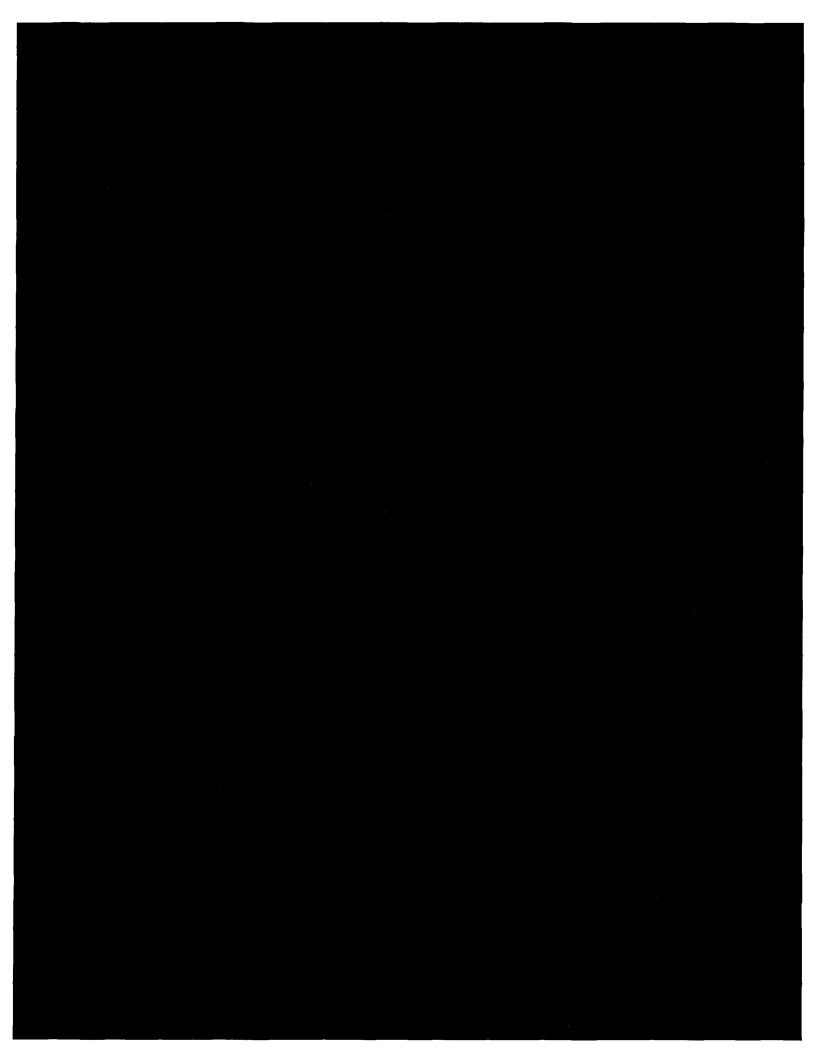
PRL 18-CP RHL 18-CP

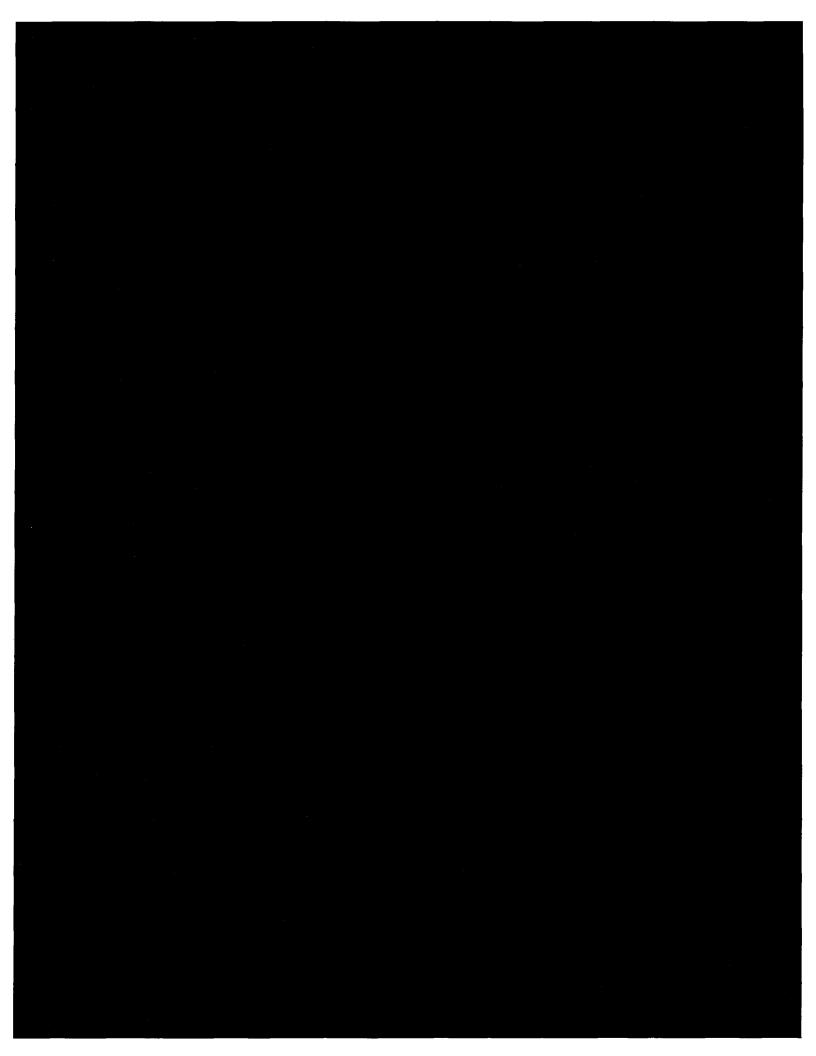
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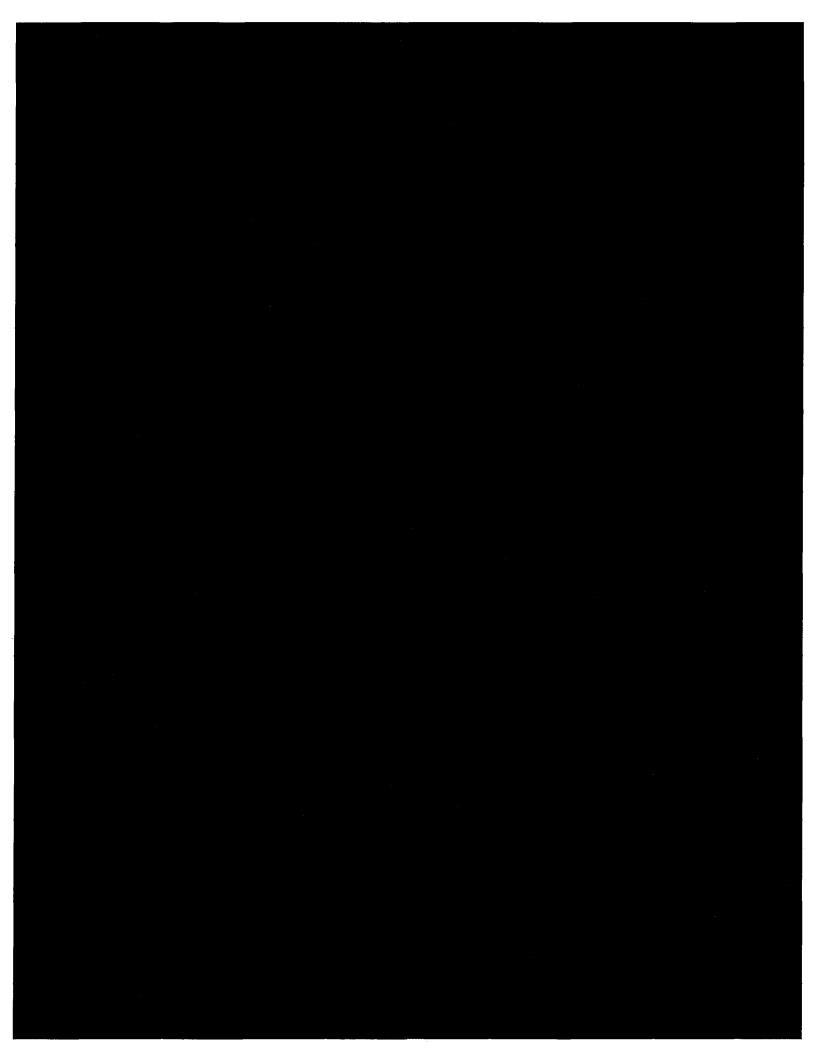
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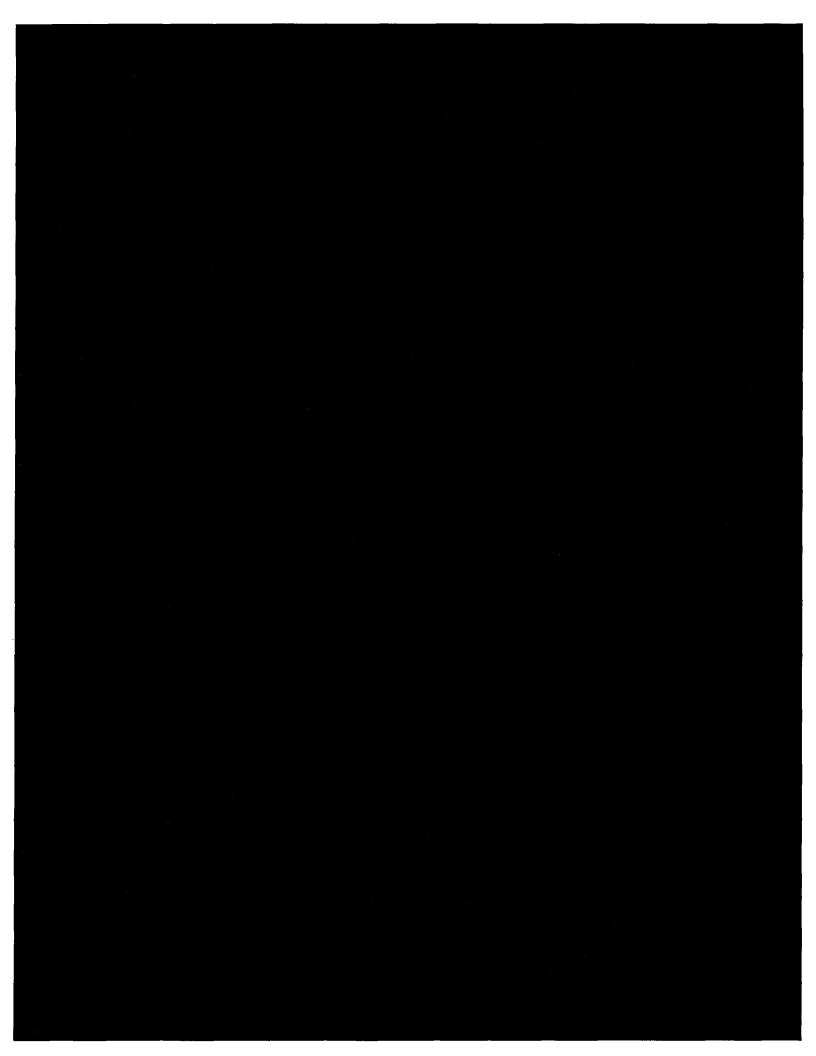
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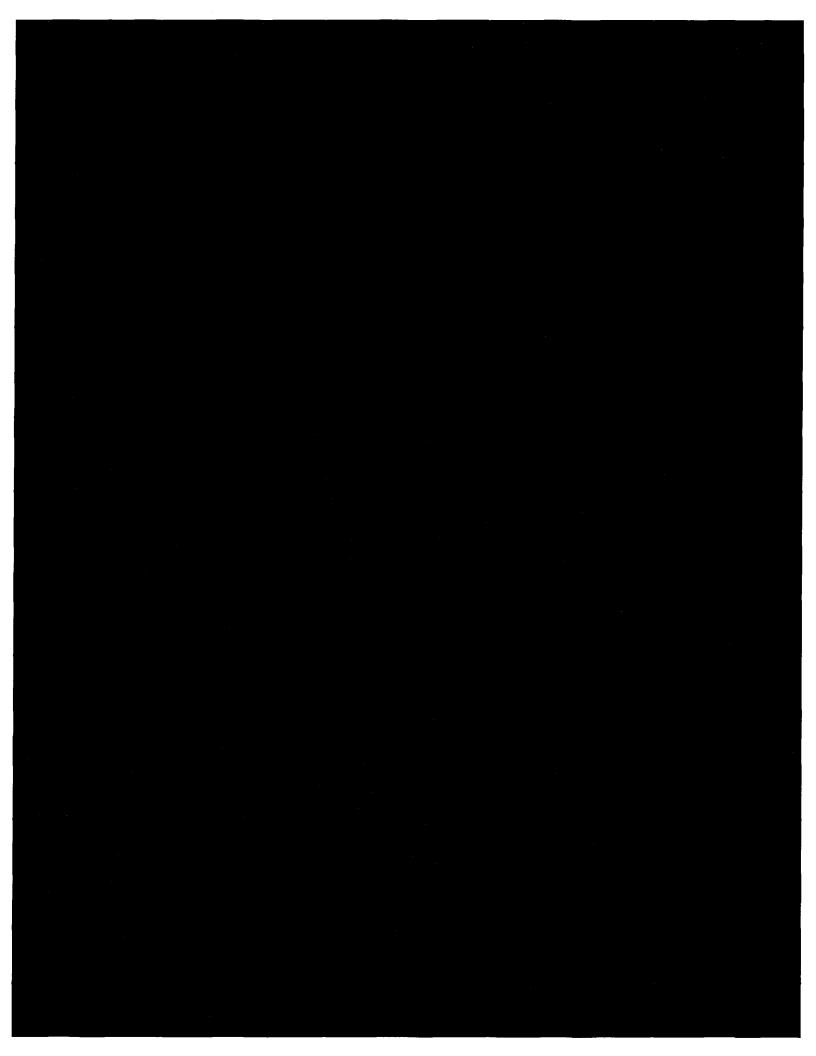
June 2018

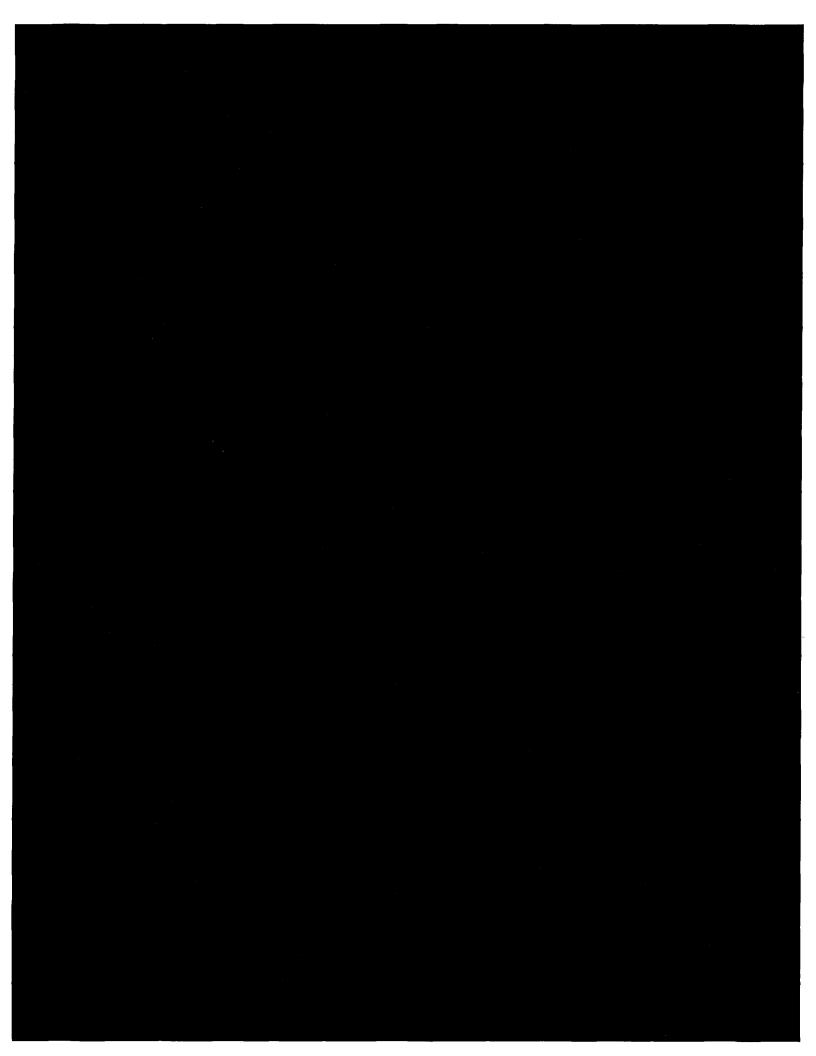


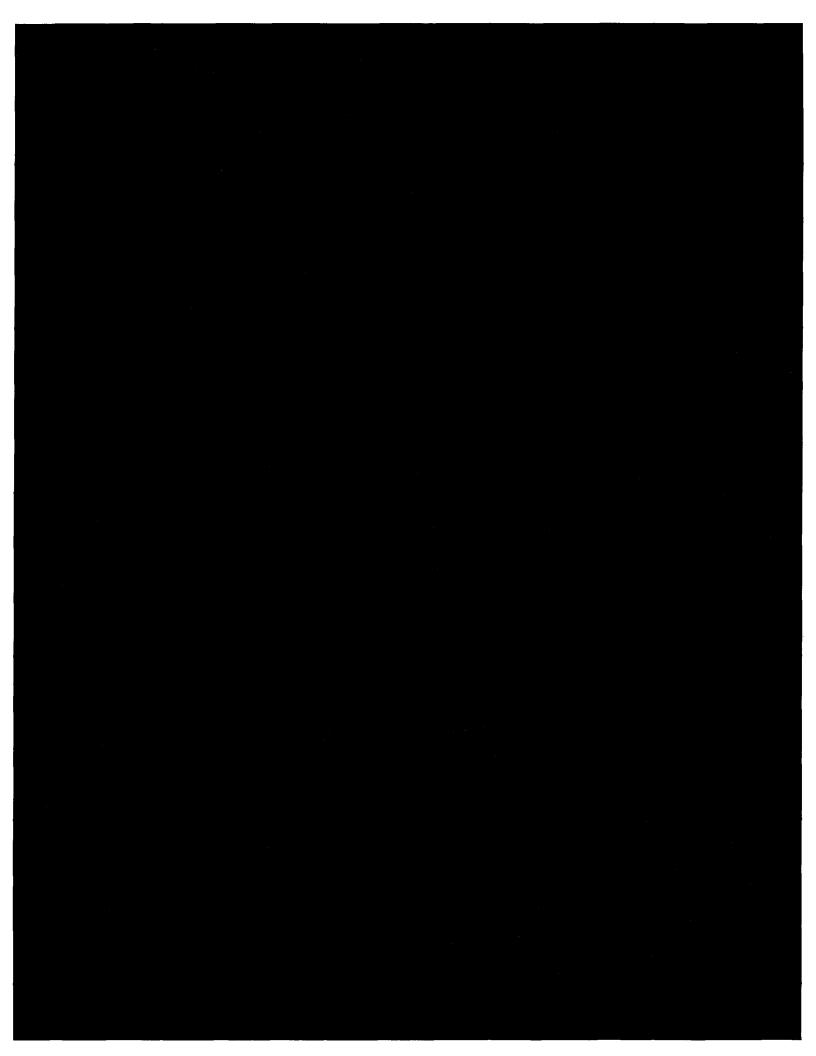


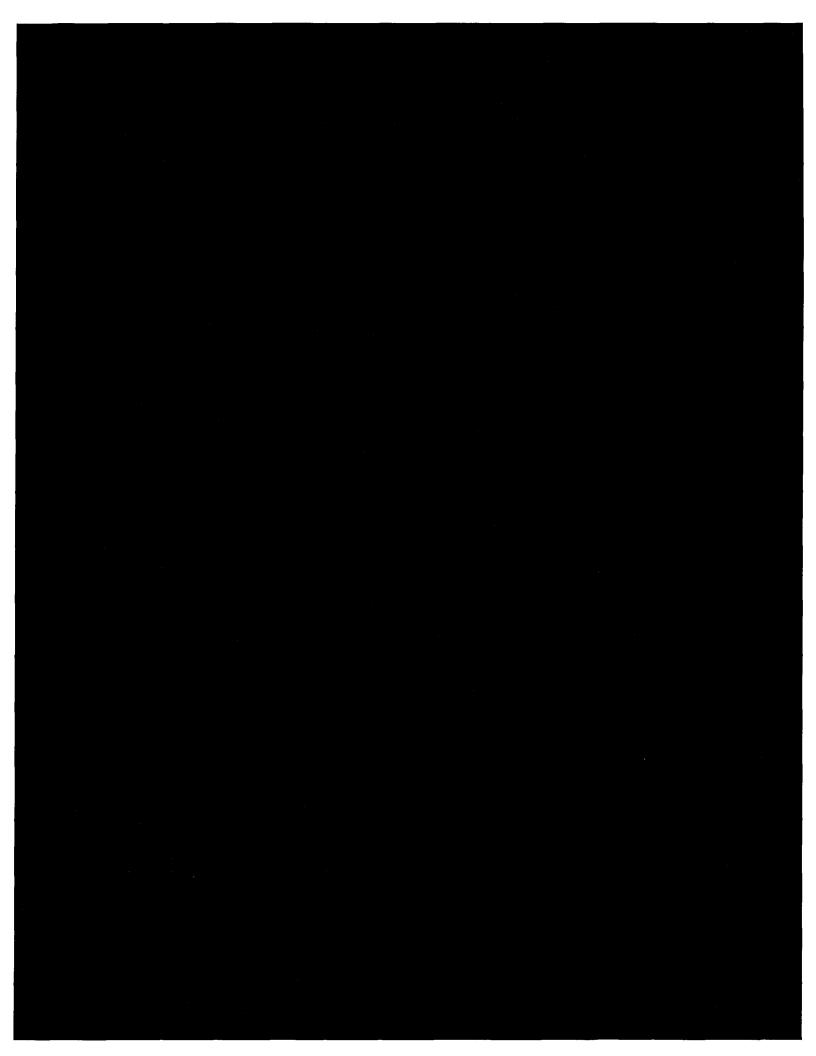


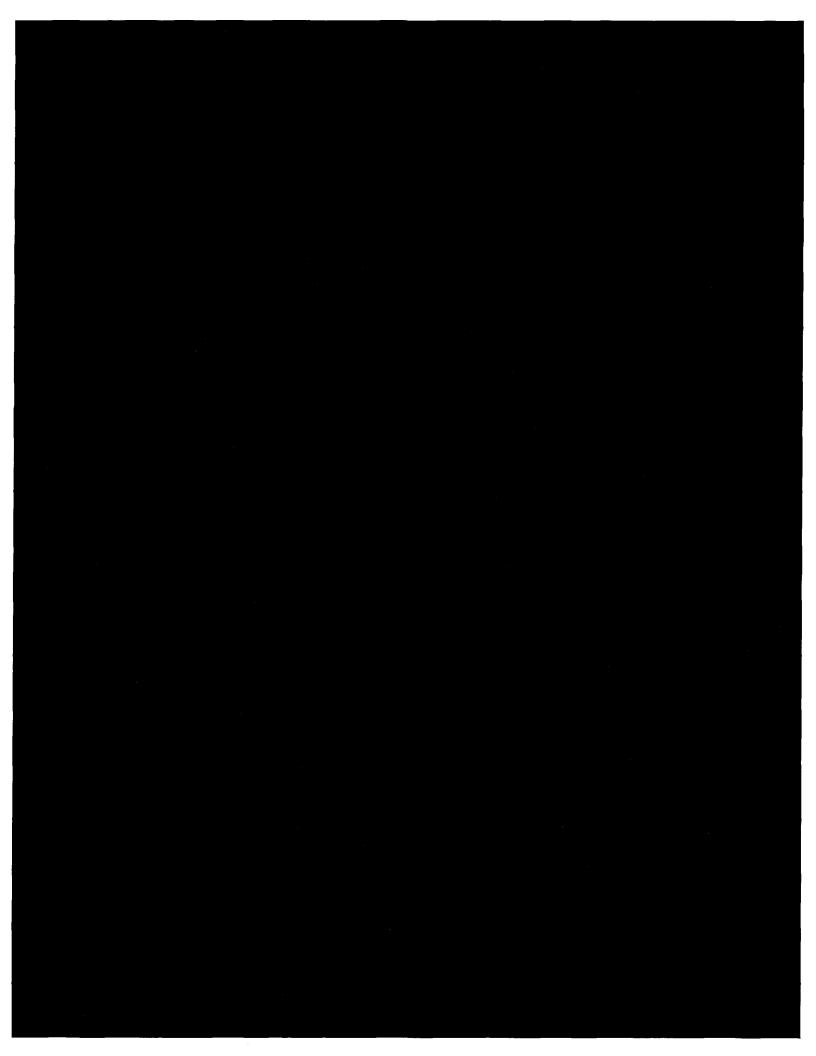


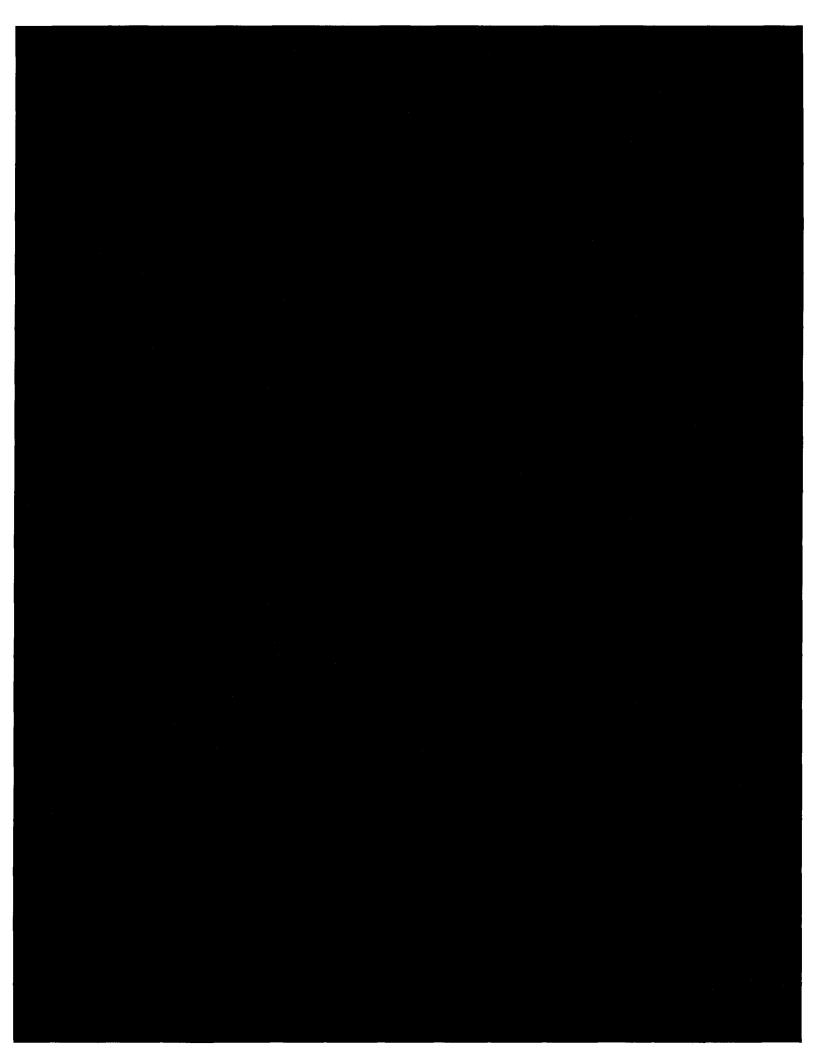












Enclosure 9



CONTRACT REPORT
CR-NAVFAC EXWC-CI-XXXX
JUNE 2017

CATHODIC PROTECTION OF POL SYSTEMS 2016 ANNUAL SURVEY

Hickam AFB Honolulu, HI

HIC 16-CP (Final)

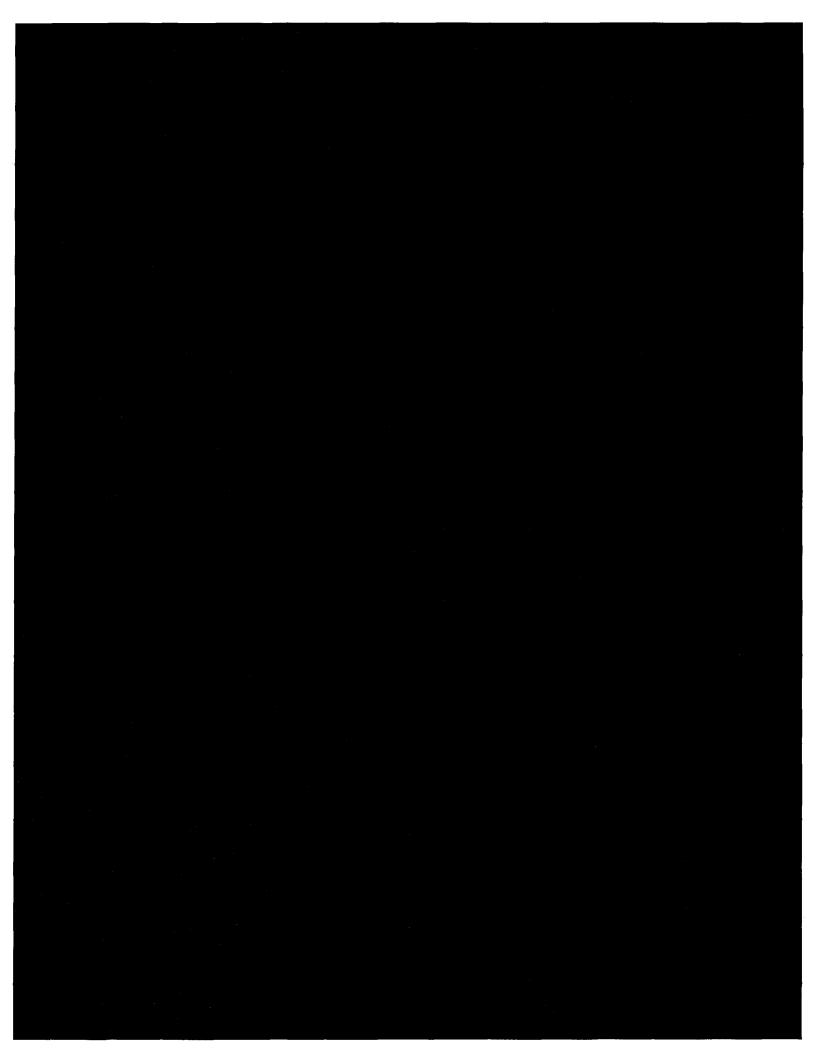
Contract No: N39430-15-D-1631 DO # 002

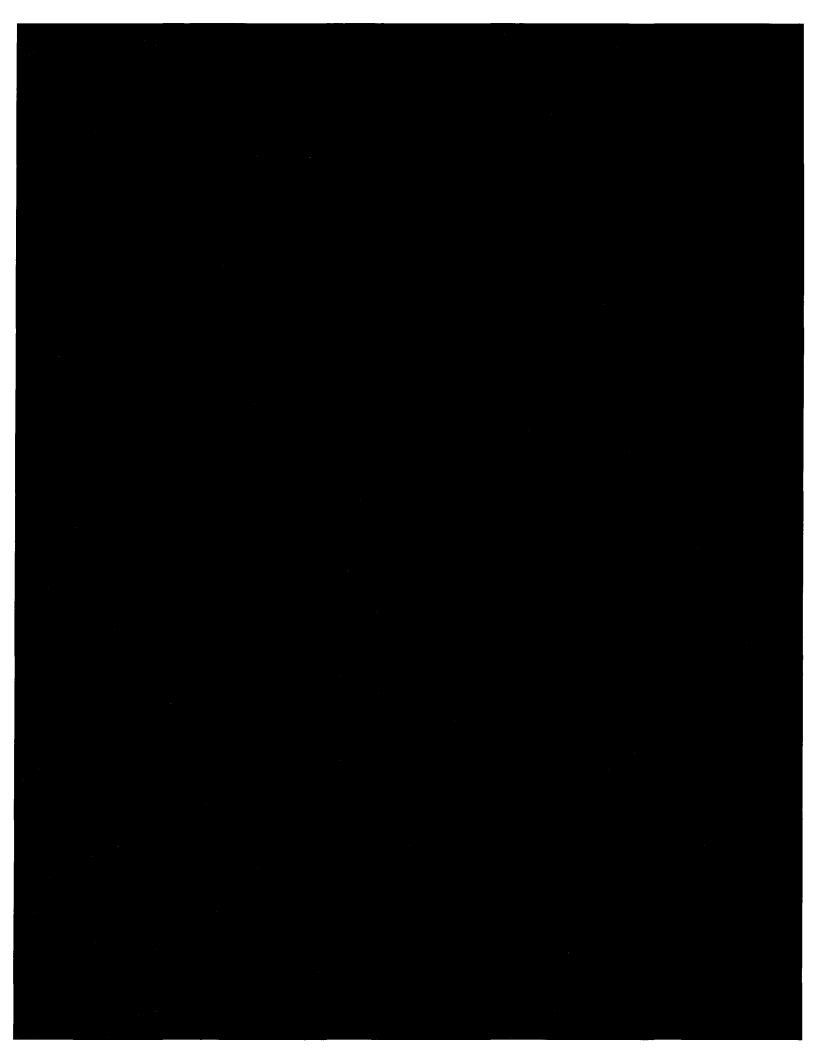
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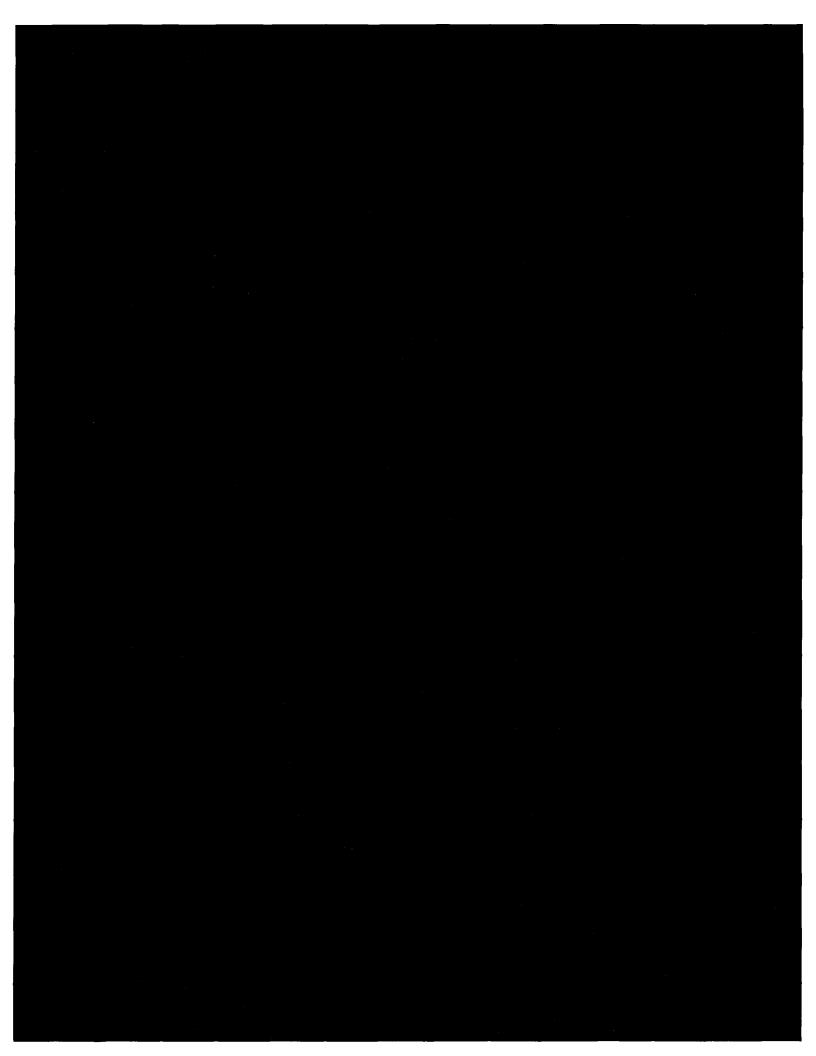
Naval Facilities Engineering and Expeditionary Warfare Center

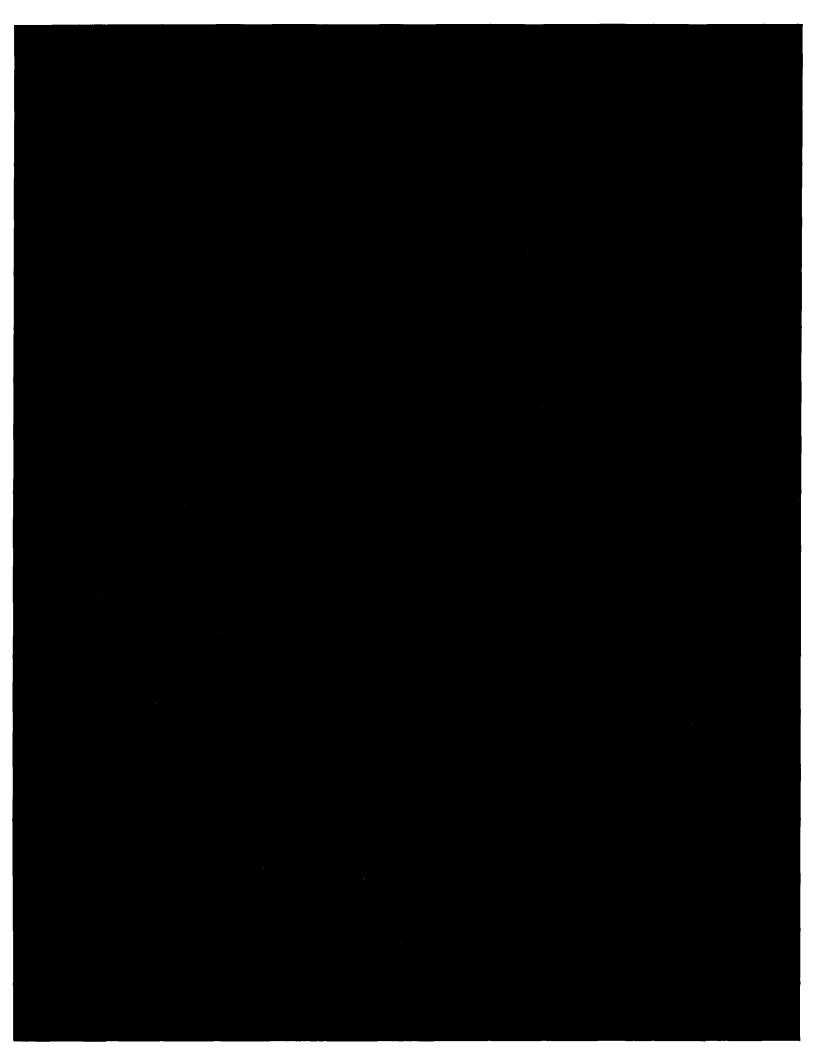
By:

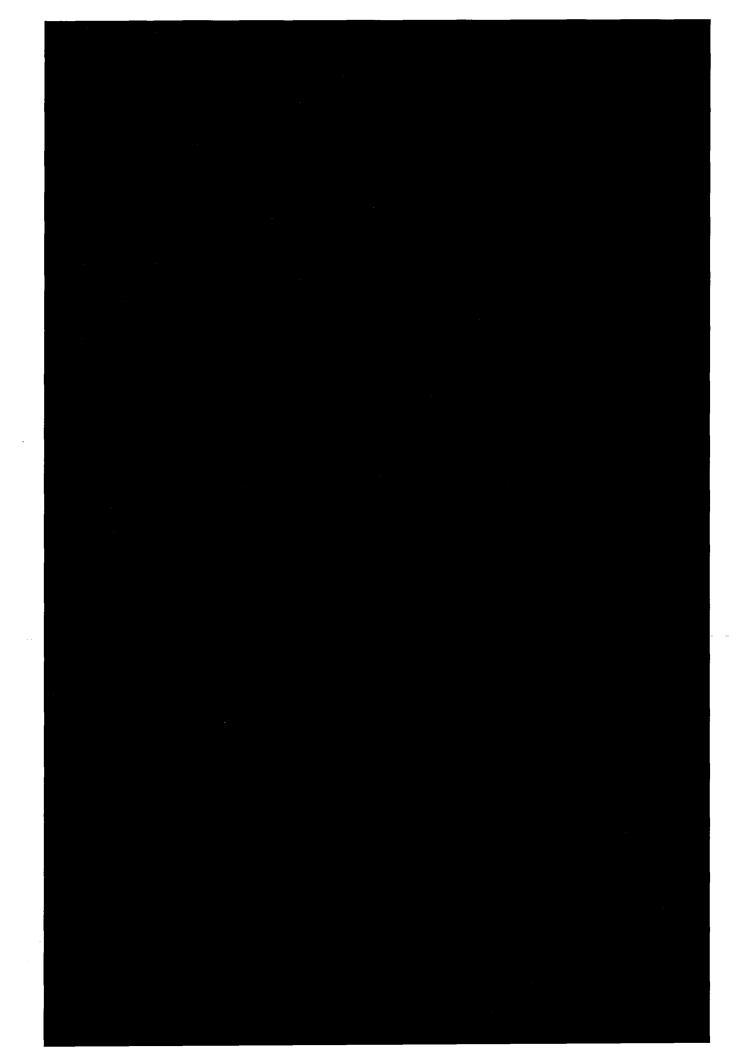
Burns & McDonnell 9400 Ward Parkway Kansas City, MO 64114

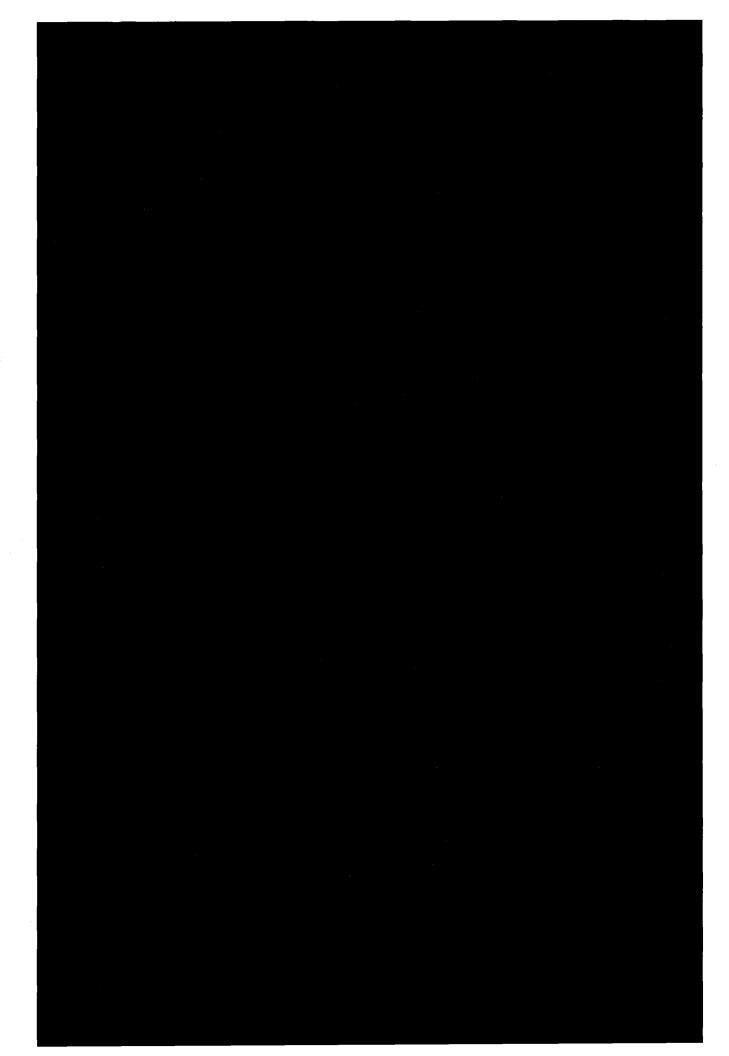


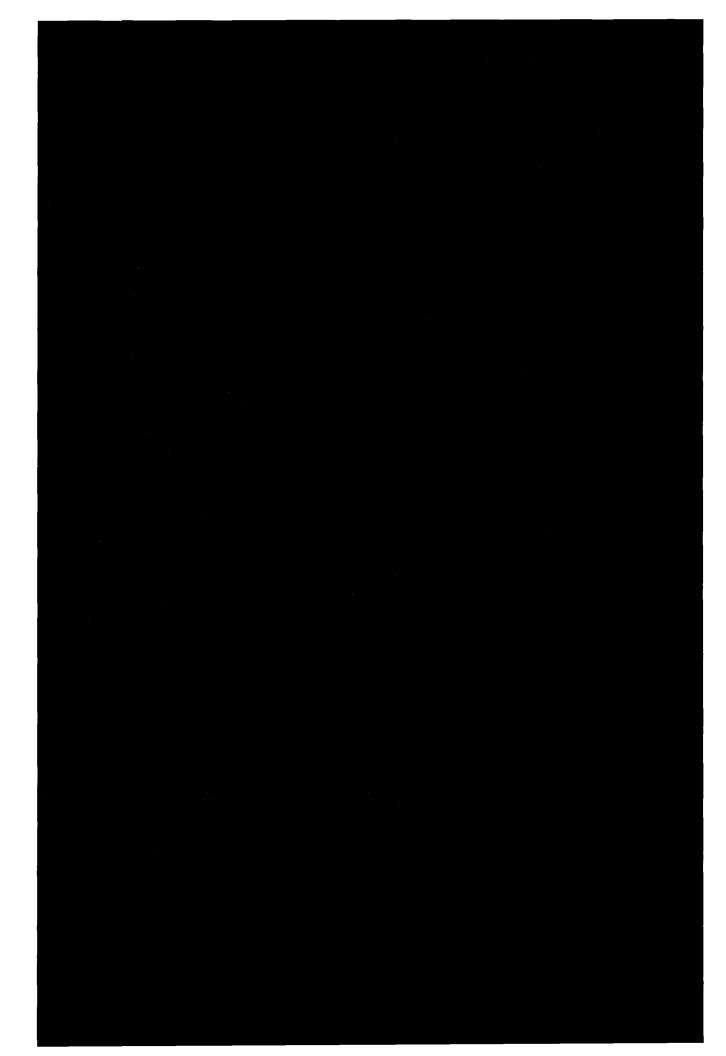


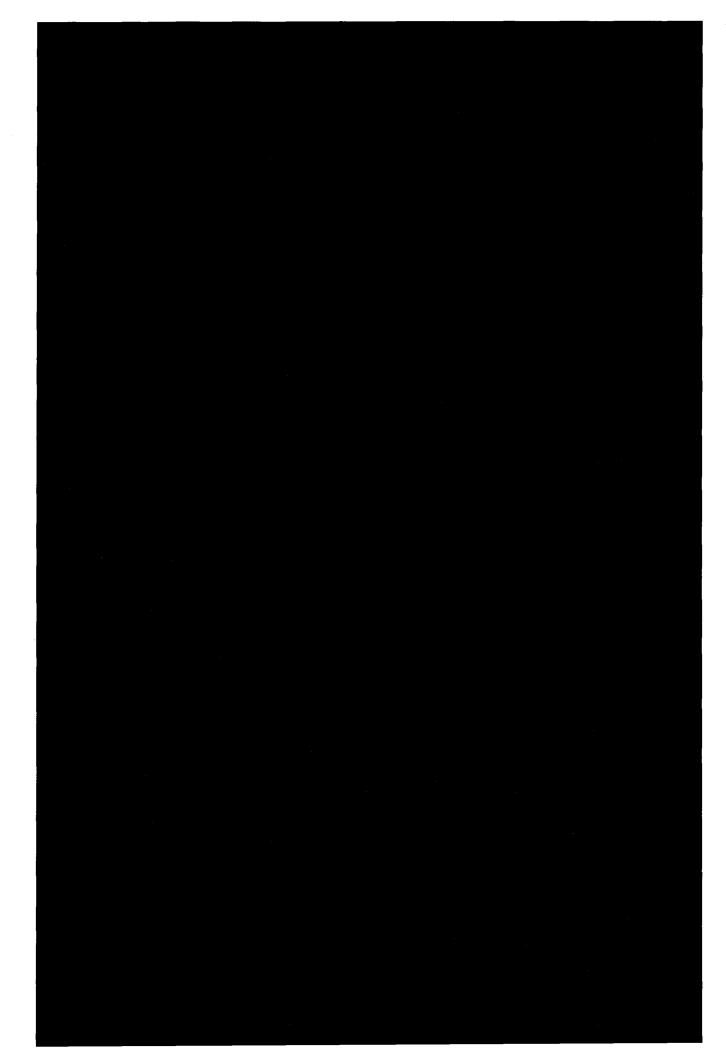




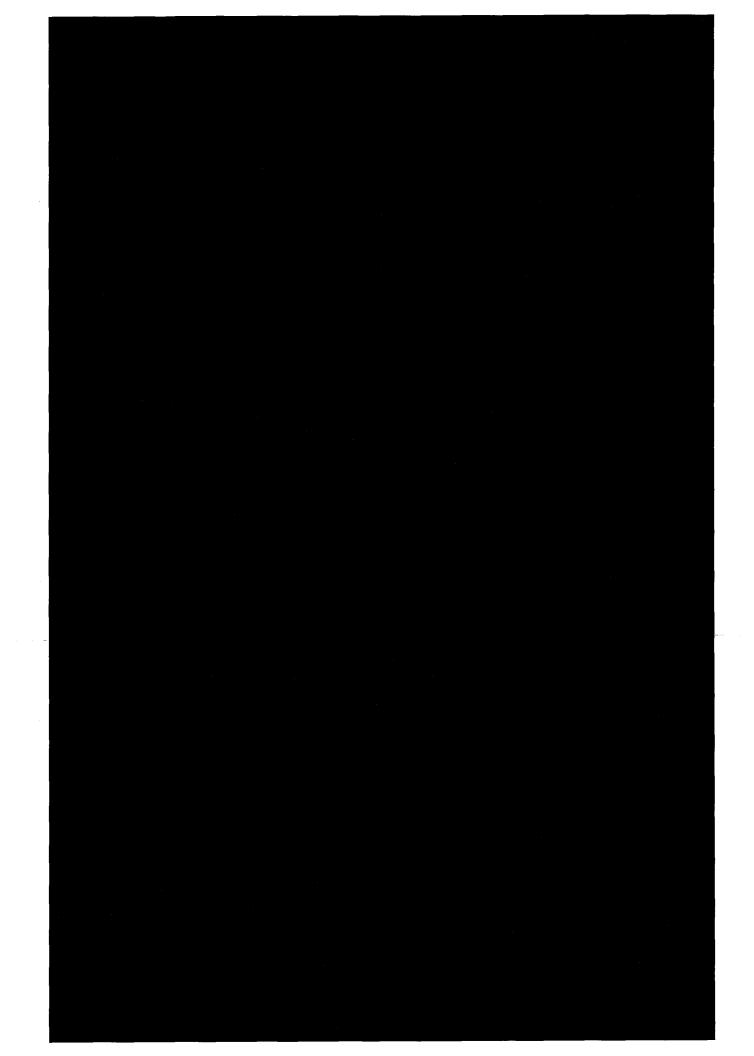


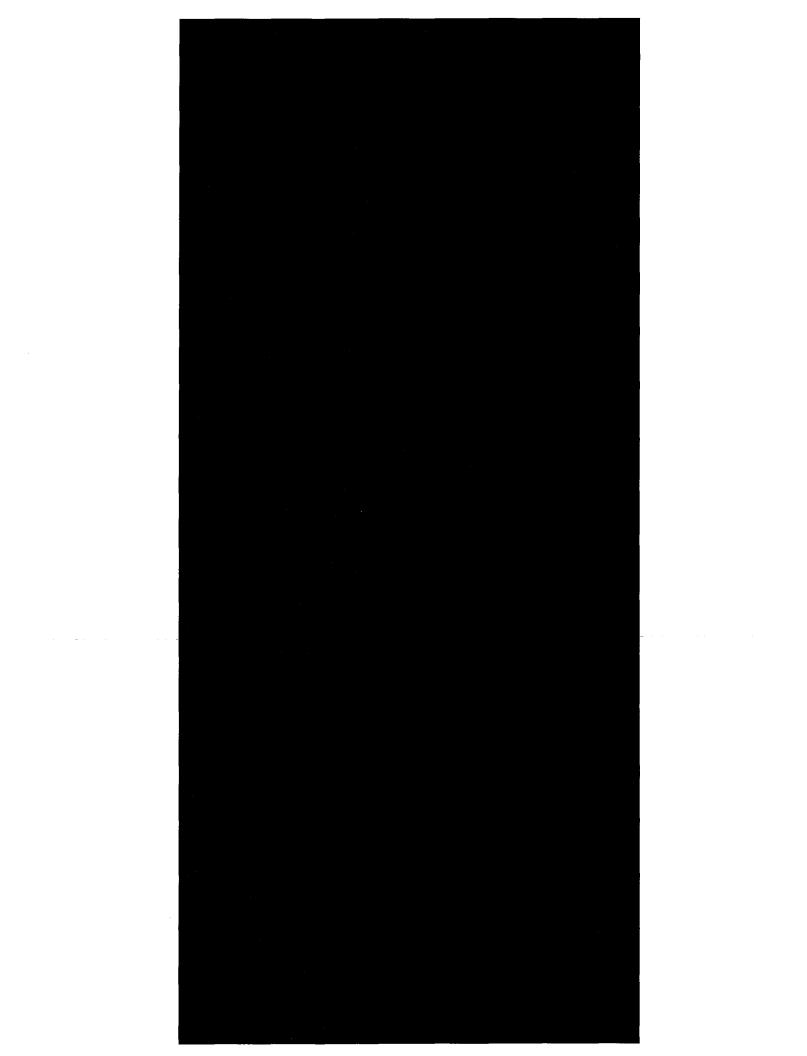


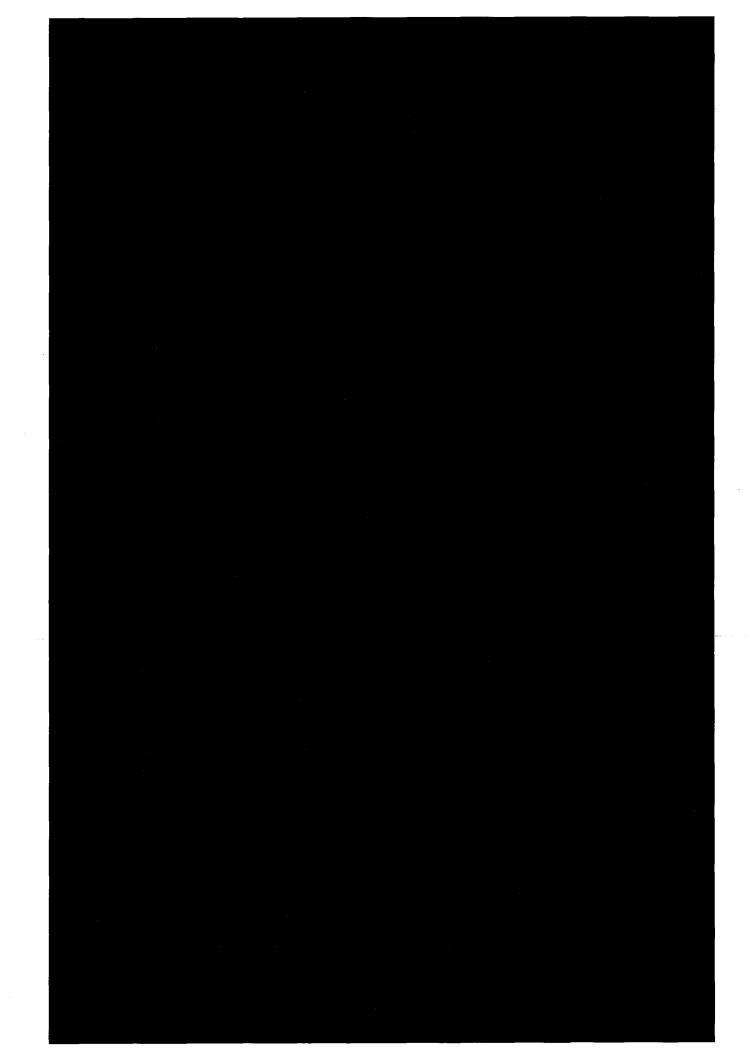














CONTRACT REPORT CR-NAVFAC EXWC-CI-18200

CATHODIC PROTECTION OF POL SYSTEMS 2017 ANNUAL SURVEY & REPAIRS

Joint Base Pearl Harbor-Hickam Honolulu, Hawaii

HIC 17-CP

Contract No: N39430-15-D-1678, TO N3943017F4130

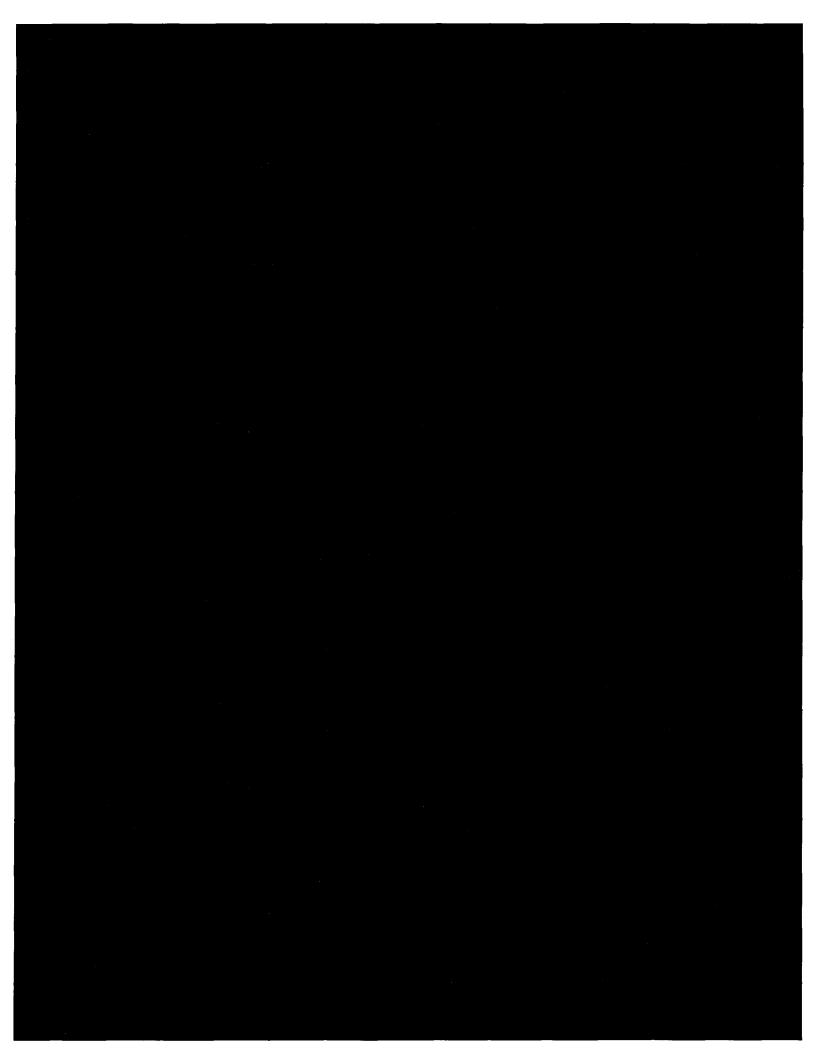
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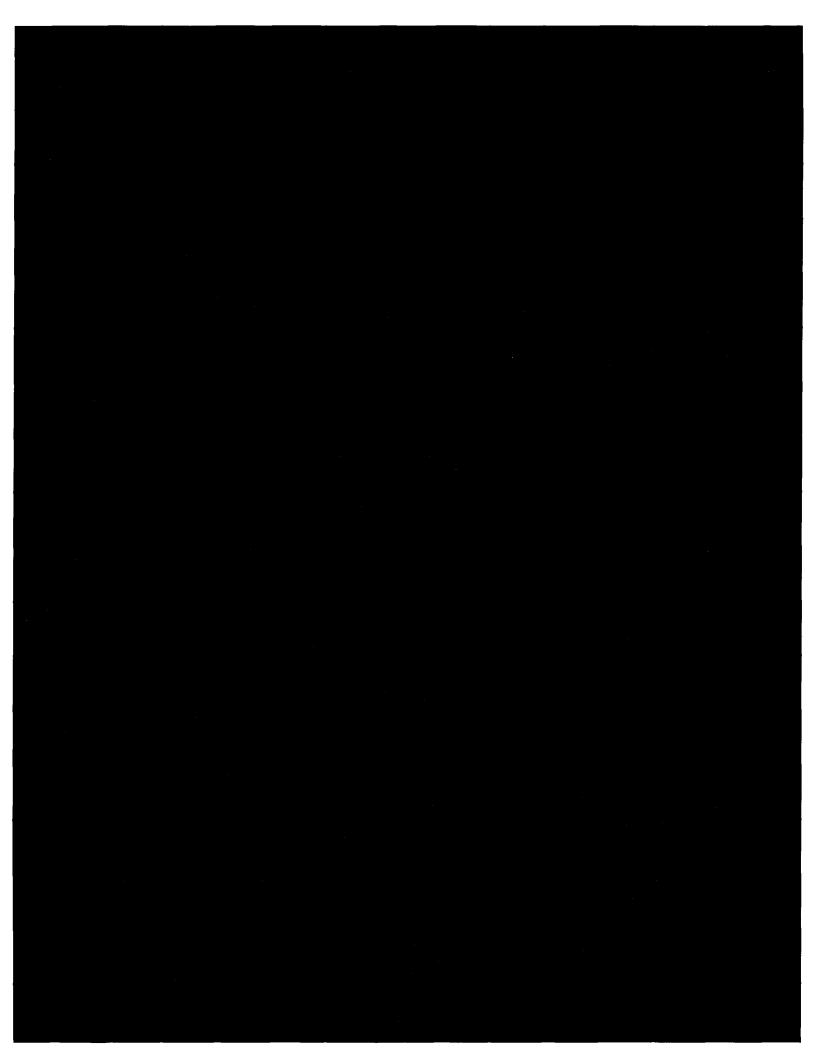
Naval Facilities Engineering and Expeditionary Warfare Center

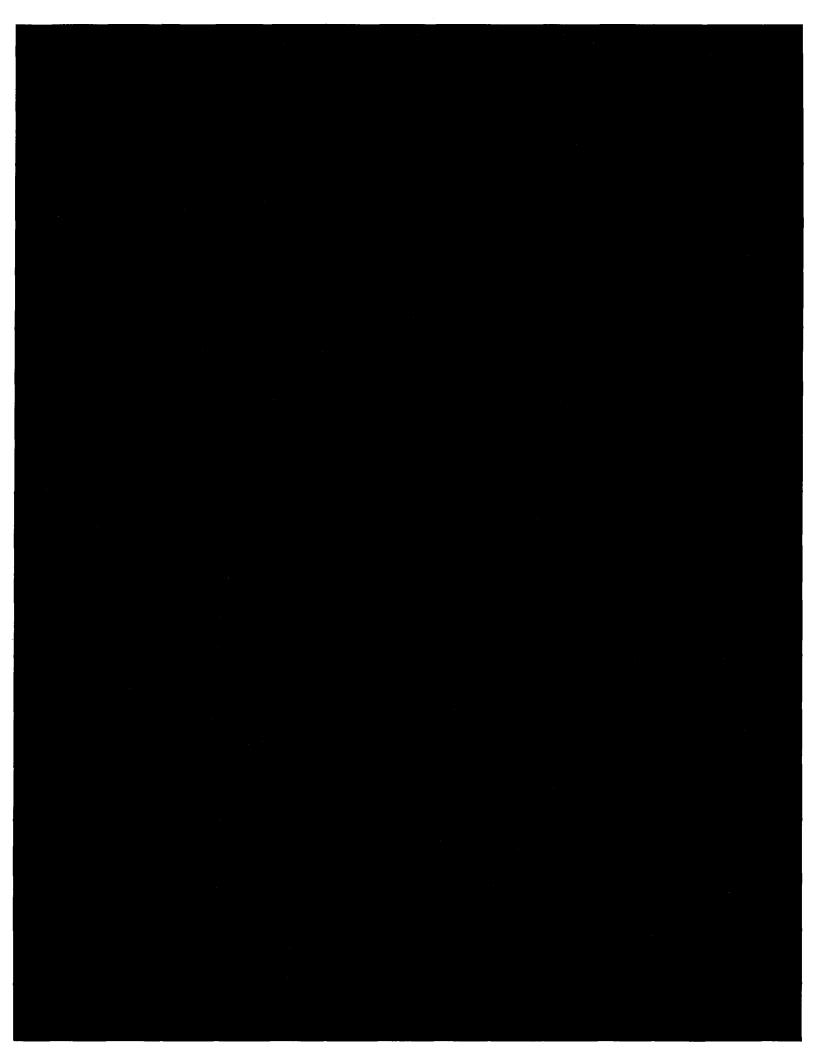
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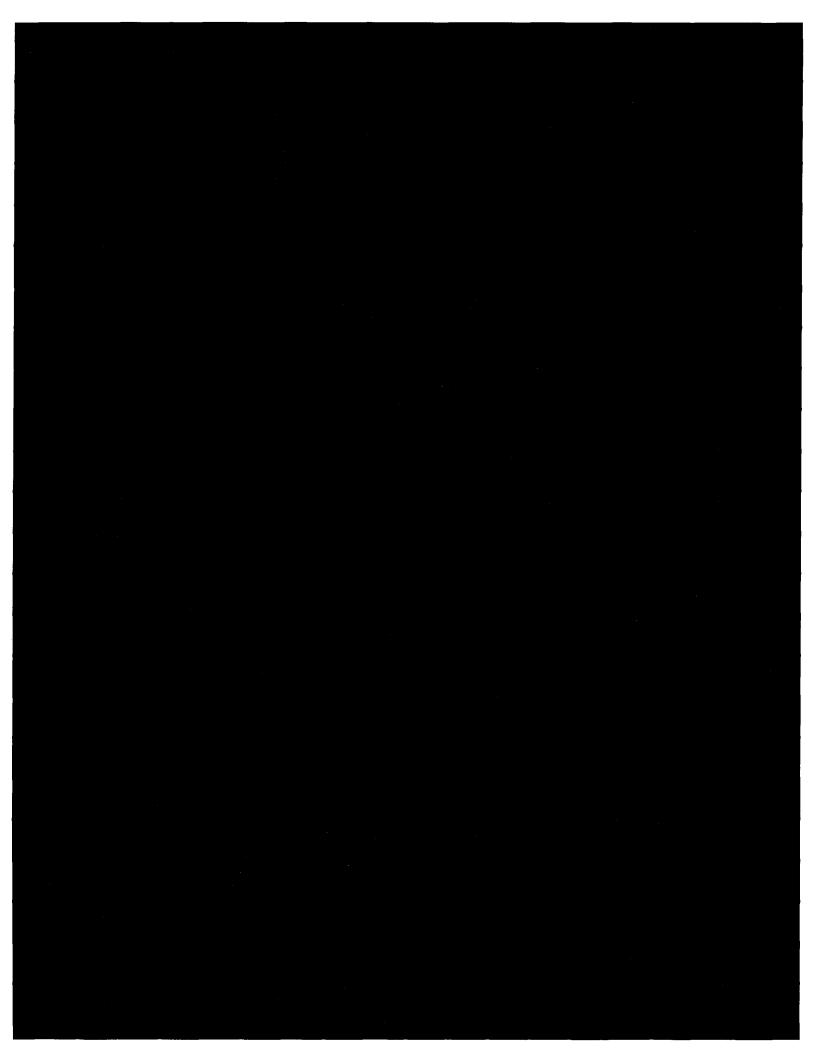
ENTERPRISE ENGINEERING INC 2525 Gambell Street, Suite 200 Anchorage, AK 99503

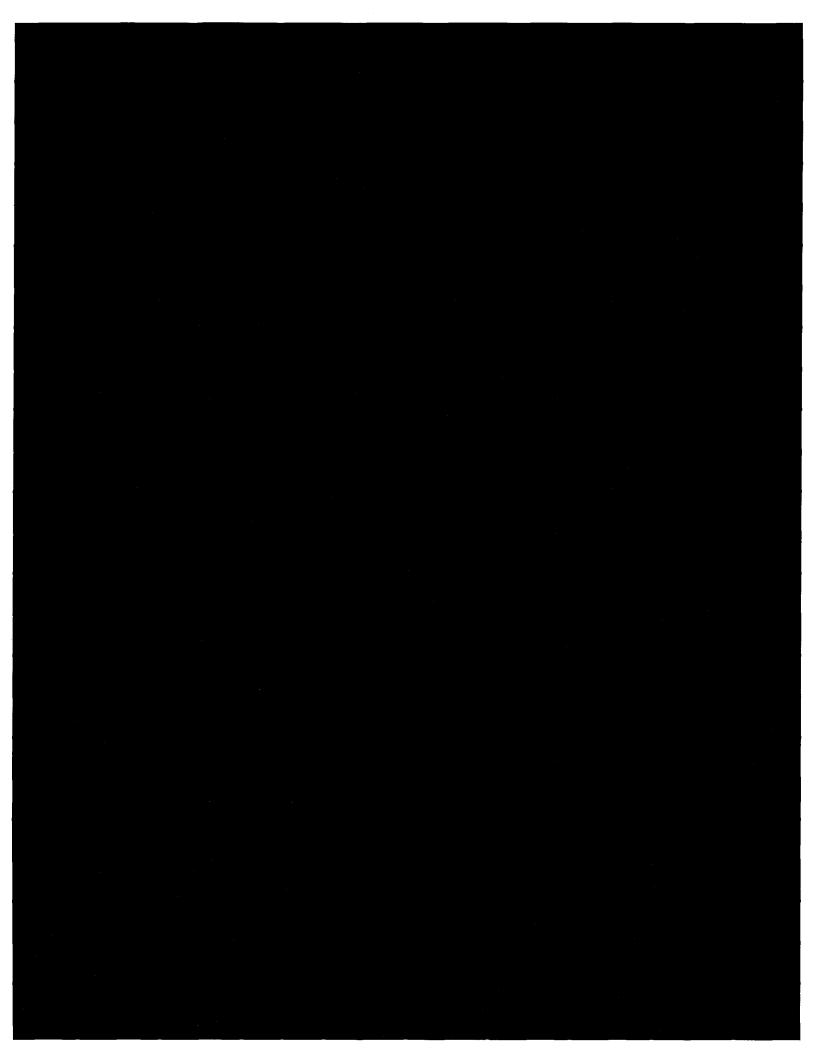
April 2018

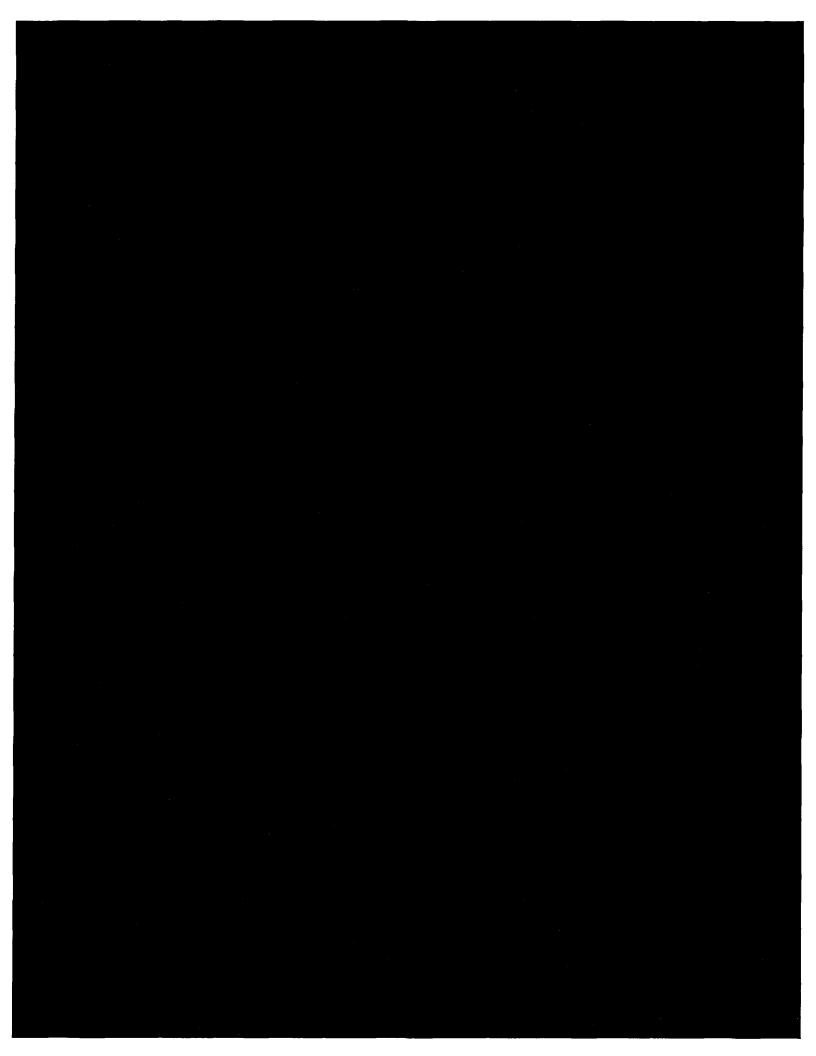


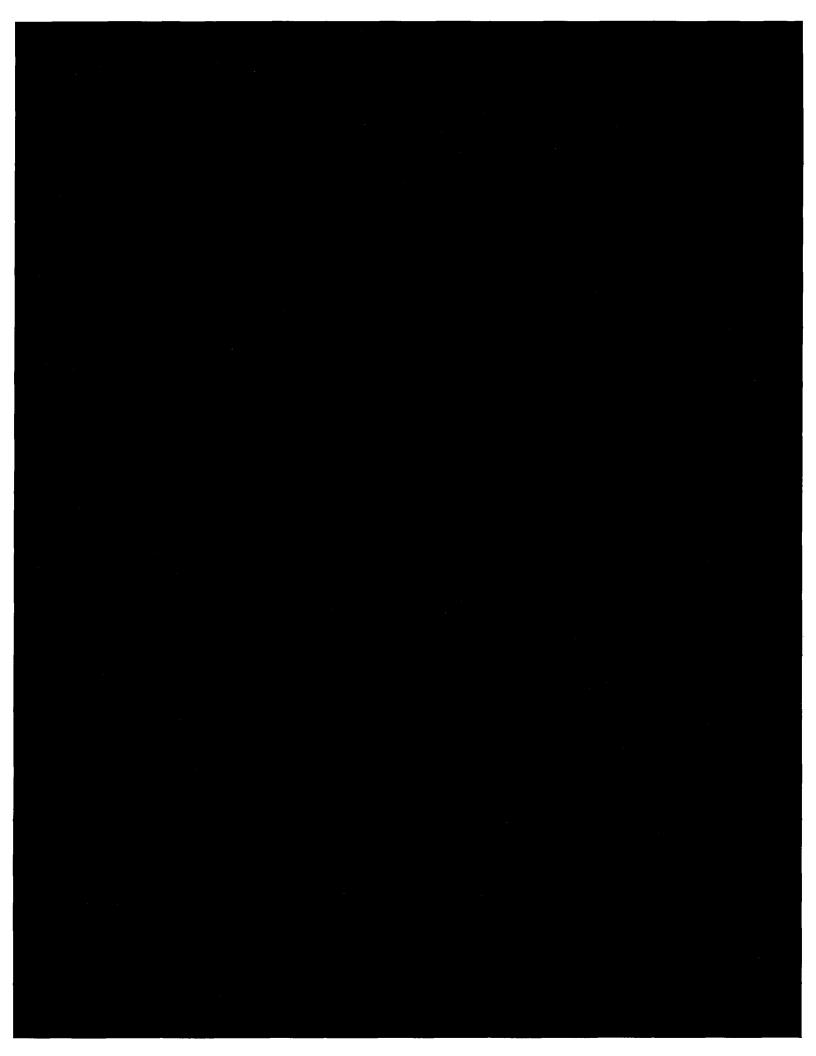


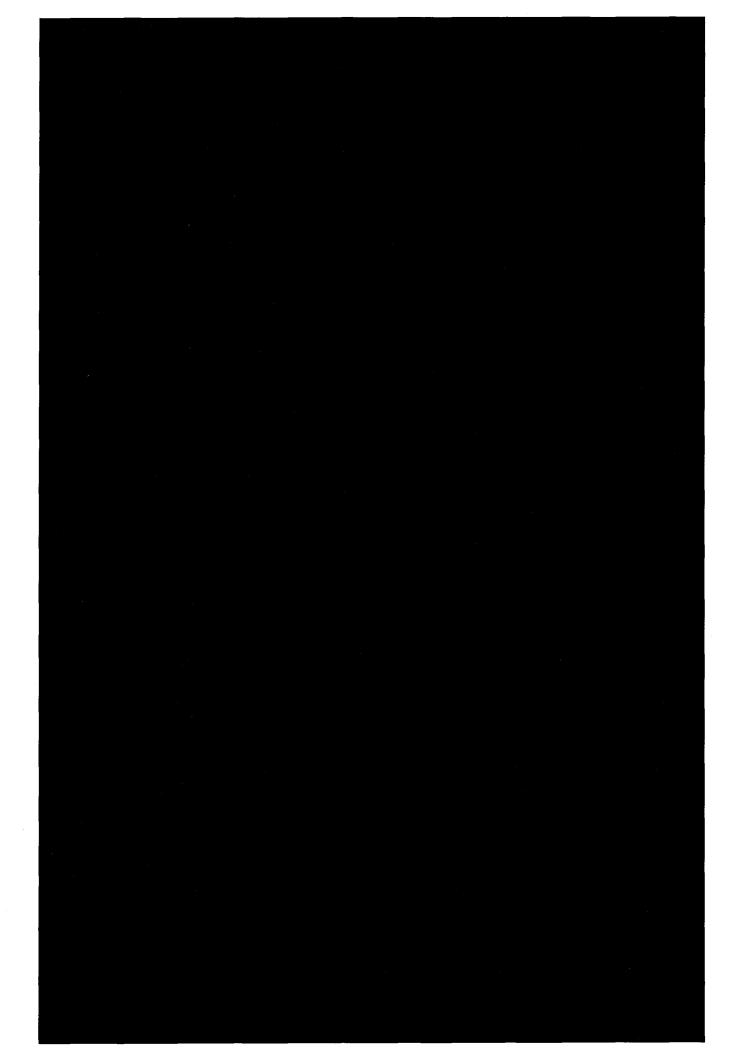


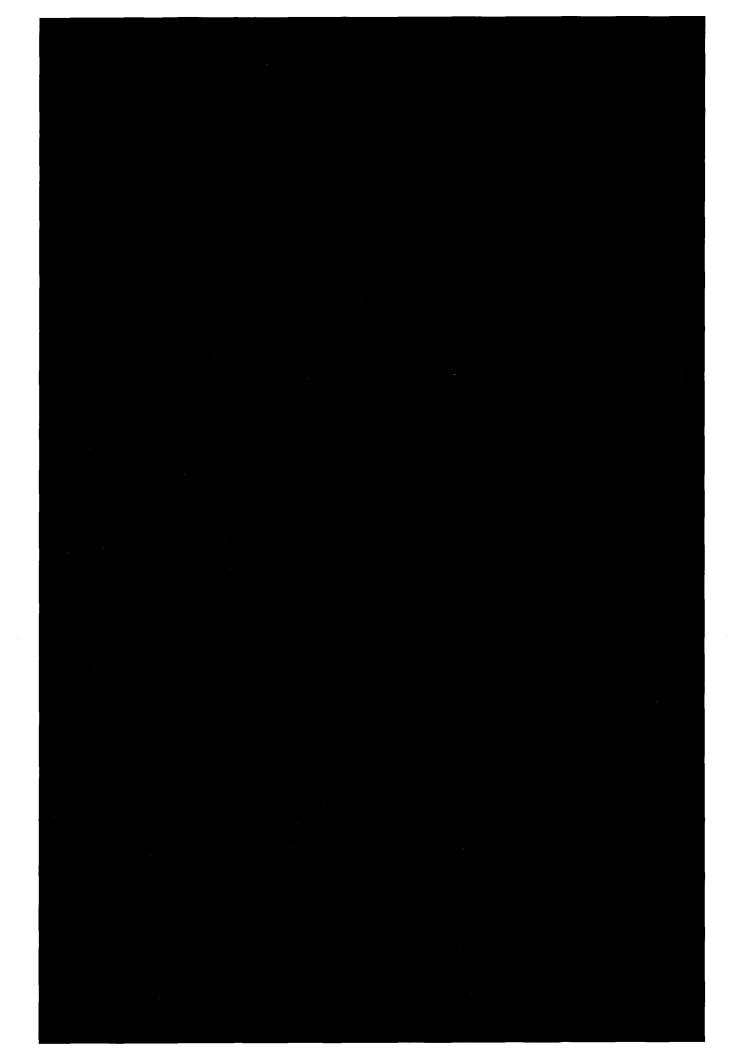


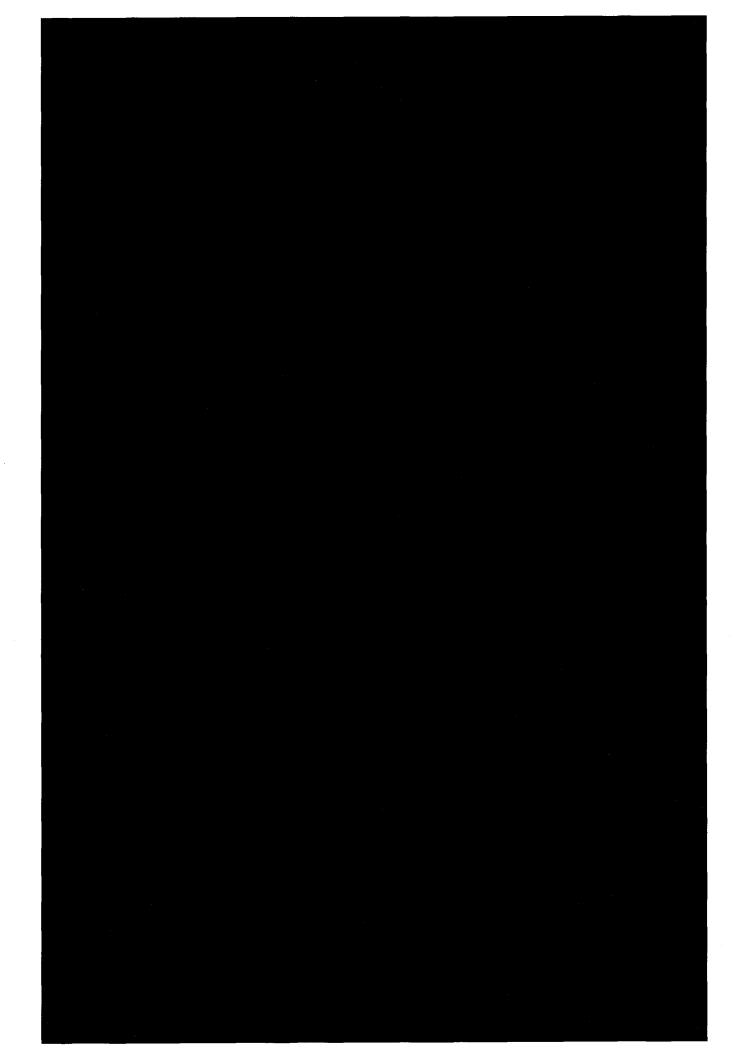


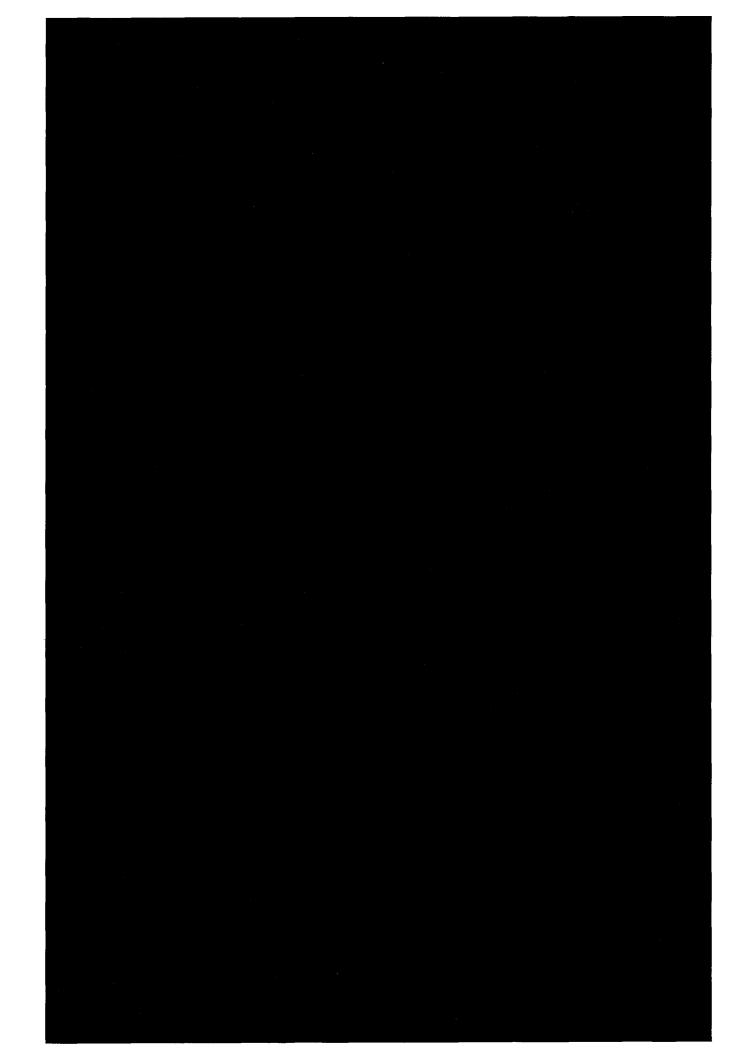


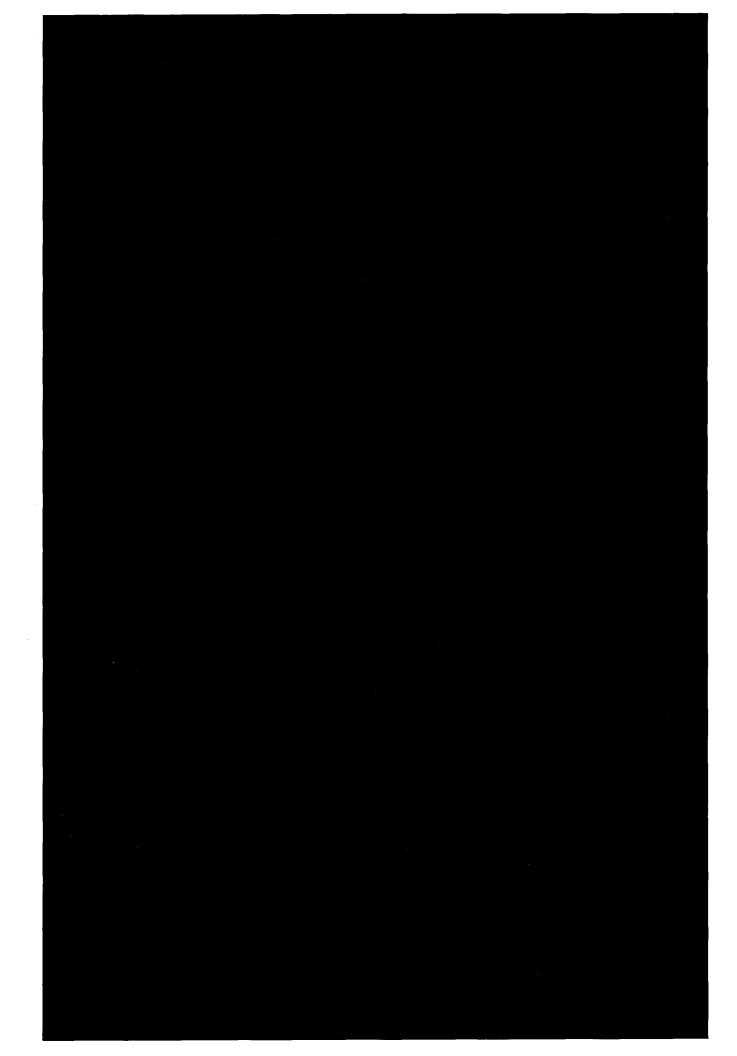


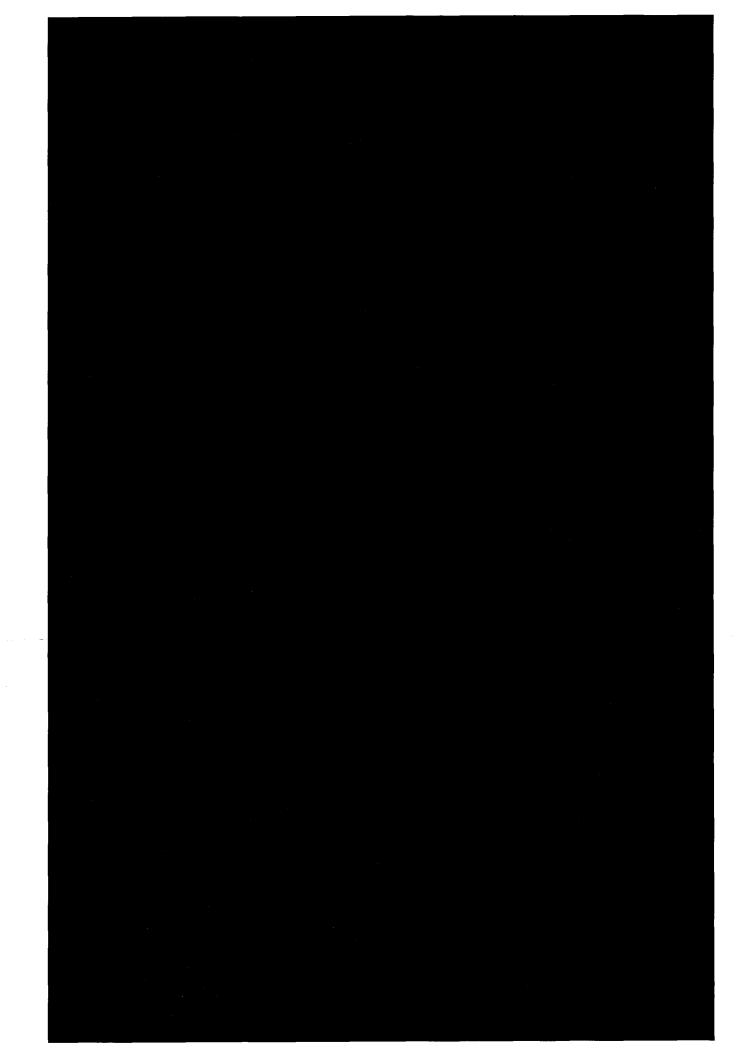


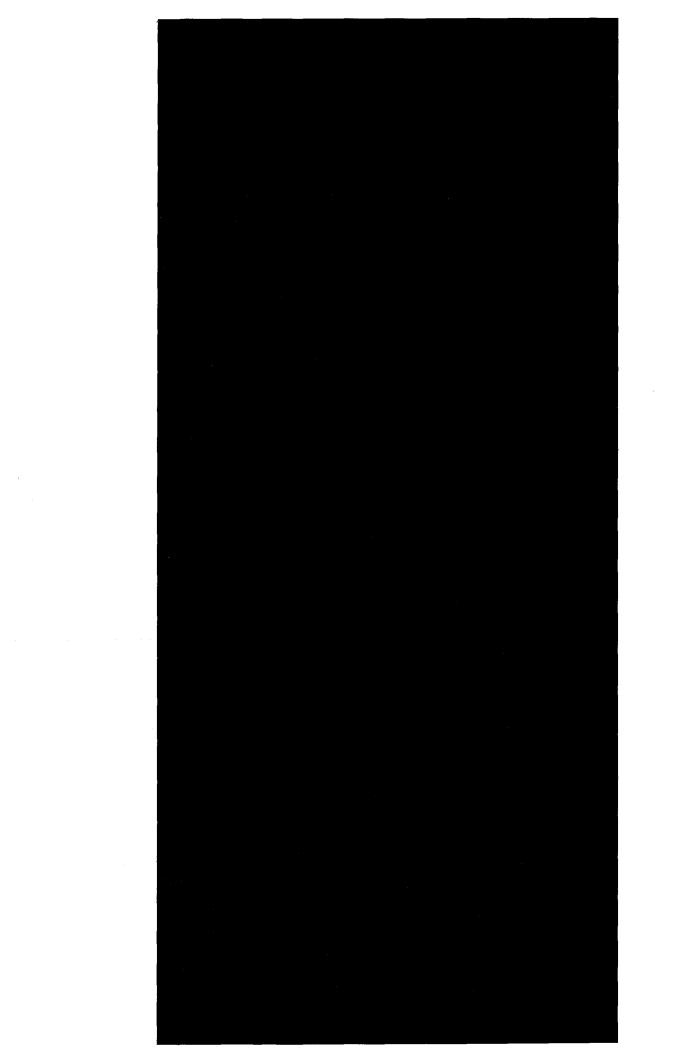












Enclosure 10



FINAL 2018 ANNUAL LEAK
DETECTION TESTING REPORT
OF 17 BULK FIELDCONSTRUCTED UNDERGROUND
STORAGE TANKS AT RED HILL
FUEL STORAGE COMPLEX

JOINT BASE PEARL HARBOR-HICKAM, HAWAII

Prepared for:
Defense Logistics Agency Energy
Fort Belvoir, Virginia

Prepared under:

Naval Facilities Engineering Command Atlantic Contract N62470-16-D-9007 Delivery Order N6247018F4143

Submitted by:

Michael Baker International Virginia Beach, Virginia

Date: 23 January 2019

Michael Baker

INTERNATIONAL Project: 169227

Task: 3.0

1.5	Project Team
1.6	Qualifications of Testing Procedures Used

Table 2-1: Results Summary

Fuel System	Designation	Height ¹ (Feet)	Capacity ² (Gallons)	Product	Test Method	Cartera	Test Date	Result	Test Product Height (Feet)
									=
								,	

4.0 REFERENCES

- 4.1 "Final 2017 Annual Leak Detection Report of 18 Bulk Field-Constructed Underground Storage Tanks at Red Hill Fuel Storage Complex, Joint Base Pearl Harbor-Hickam, Hawaii"; Prepared for: Defense Logistics Agency Energy, Fort Belvoir, Virginia; Prepared under: Naval Facilities Engineering Command Atlantic Contract N62470-16-D-9007-0004; Submitted by: Michael Baker International, Virginia Beach, Virginia; Date: 23 January 2018.
- 4.2 "Final 2018 Annual Leak Detection Report of Two Bulk Field-Constructed Underground Storage Tanks at Red Hill Fuel Storage Complex, Joint Base Pearl Harbor-Hickam, Hawaii"; Prepared for: Defense Logistics Agency Energy, Fort Belvoir, Virginia; Prepared under: Naval Facilities Engineering Command Atlantic Contract N62470-16-D-9007, Task Order N6247018F4006; Submitted by: Michael Baker International, Virginia Beach, Virginia; Date: 15 June 2018.

