Stormwater Pollution Prevention & Erosion and Sediment Control Plan for:

Owner(s):

Parallel Products located at: 20 Duchaine Boulevard New Bedford, MA 02745

Contractor(s):

Farland Corp. 401 County Street New Bedford, MA 02740

Phone: (508) 717-3479 Fax: (508) 717-3481

SWPPP Contact(s):

Matthew J. White Farland Corp. 401 County Street New Bedford, MA 02740

Phone: (508) 717-3479 Fax: (508) 717-3481

SWPPP Preparation Date:

November 2017

Estimated Project Dates:
Project Start Date: December 6, 2017
Project Completion Date: May 31, 2018

Prepared by:



ENGINEERING A BETTER TOMORROW

ENGINEERING | SITE WORK | LAND SURVEYING

(MAIN OFFICE) 401 COUNTY STREET, NEW BEDFORD, MA 02740 P 508.717.3479 F 508.717.3481

WWW.FARLANDCORP.COM

1.7 Site Features and Sensitive Areas to be Protected

Description of unique features that are to be preserved:

No disturbance is permitted beyond the proposed erosion control measures to be installed prior to construction. These barriers represent the limit of work permitted within the buffer zone to the surrounding BVW.

Describe measures to protect these features:

Straw wattles with Silt Fence and/or hay bale barriers will be installed at locations shown on the plans. Dedicated construction entrances are to be utilized during construction. The existing onsite drainage system will be protected by the appropriate erosion controls throughout construction.

1.8 Potential Sources of Pollution

Potential sources of sediment to stormwater runoff:

- Grading and site excavation operations
- Vehicle tracking
- Topsoil stripping and stockpiling
- Landscape operations

Potential pollutants and sources, other than sediment, to stormwater runoff:

- Combined Staging Areas small fueling activities, minor equipment maintenance, sanitary facilities and hazardous waste storage.
- Materials Storage Areas general construction materials, solvents, adhesives, paving materials, paints, aggregates, trash, etc....
- Construction Activity paving, curb/gutter installation, concrete pouring/mortar, etc...
- Concrete Washout Area (if necessary).

Aside from the above mentioned potential pollutants, there will be no treatment chemicals used for the means of reducing or treating stormwater runoff. The procedures outlined in the erosion control and natural buffers section above will sufficiently handle the stormwater runoff produced by this project, so no additional chemicals will be needed at this time. All other chemicals that may be encountered on site are listed below, and all have been chosen to be as minimally harmful as possible given the site conditions and soils.

Trade Name Material	Stormwater Pollutants	Location		
Pesticides (insecticides, fungicides, herbicides, rodenticides)	cides, herbicides, organophosphates, carbamates,			
Fertilizer	Nitrogen, phosphorous	Newly seeded areas		
Cleaning solvents	Perchloroethylene, methylene chloride, trichloroethylene, petroleum distillates	No equipment cleaning allowed in project limits		
Asphalt	Oil, petroleum distillates	Parking area		
Concrete	Limestone, sand, pH, chromium	Curb and gutter		
Glue, adhesives	Polymers, epoxies	Drainage construction		
Paints	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic	Parking striping		
Curing compounds	Naphtha	Curb and gutter		
Hydraulic oil/fluids	Mineral oil	Leaks or broken hoses from equipment		
Gasoline	Benzene, ethyl benzene, toluene, xylene, MTBE	Secondary containment/staging area		
Diesel fuel	Petroleum, distillate, oil & grease, naphthalene, xxylenes	Secondary containment/staging are		
Kerosene	Coal oil, petroleum distillates	Secondary containment/staging area		
Antifreeze/coolant	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)	Leaks or broken hoses from equipment		
Sanitary toilets	Bacteria, parasites, and viruses	Staging area		

1.9 Endangered Species Certification

Are endangere	ed or threatened species and critical habitats on or near the project area?
Yes	□ No
Describe how	this determination was made:

Farland Corp. has reviewed the potential for endangered or threatened species and critical

habitats by using the Fish and Wildlife Services On-line mapping tool (iPaC) located at https://ecos.fws.gov/ipac/ (accessed on 11/28/17) to determine if any exist on or around the project site, and that they might be affected by any construction activities. It was determined that there is one (1) species of threated wildlife that may be affected by said construction activitied.

If yes, describe the species and/or critical habitat:

The species found on the above referenced database is the Northern Long-Eared Bat. This species is classified as "threatened", and does not have a designated critical habitat.

If yes, describe or refer to documentation that determines the likelihood of an impact on identified species and/or habitat and the steps taken to address that impact. (Note, if species are on or near your project site, EPA strongly recommends that the site operator work closely with the appropriate field office of the U.S. Fish and Wildlife Service or National Marine Fisheries Service. For concerns related to state or tribal listing of species, please contact a state or tribal official.)

Due to the previously developed nature of the project site and surrounding area, a visual inspection has been conducted to determine the potential presences of the species as well as any potential impacts to its natural habitat. This site inspection was performed by Matthew White of Farland Corp. on May 15, 2017. Upon the completion of the inspection no specimens of the stated threatened species were encountered, and the proposed work to take place for this project will be mostly contained to the previously developed commercial areas of the site. In addition, there will be minimal to no impact on the existing wooded areas surrounding the project site.

1.10 Historic Preservation

Are there any	historic sites on or near the construction site?
☐ Yes	⊠ No

Describe how this determination was made:

Farland Corp. has reviewed the Massachusetts State Register of Historic Places available from the Division of Tourism – Massachusetts Historic Sites at http://www.mass.gov/portal/visiting-recreation/tourism/massachusetts-historic-sites.html (accessed on 11/28/17) to determine if any historic sites are on or near the Eversource Energy site in New Bedford, Massachusetts. No historic sites were identified from this review. Additionally, Farland Corp. has contacted The City of New Bedford's Historical Commission to verify that no historical sites or areas exist at the proposed work site. Farland Corp. described the location and nature of the work, and it was verified that there are no historic sites on or near the project area.



The Commonwealth of Massachusetts Department of Public Safety Division of Fire Prevention and Regulation

APPLICATION FOR PERMIT TO MAINTAIN AN EXISTING/NEW UNDERGROUND

	TO: Head of Fire Department STORAGE FACILITY
	New Bedford April 22, 1991 City, Town or District Date
	Application is hereby made for a permit to maintain an existing/new underground storage facility as required by 527 CMR 9.00: Permits.
	Location of property: 100 Duchaine Blvd.
850	Street Address
	Owner of property: Polaroid Corporation
	Full name of person, firm or corporation Signature of owner or authorized representative: Richard Changles FEE: \$ 15.00 (M.G.L.A. Chapt. 148 Sec. 10A)
RM F.P. 290 v. 10/96)	(Fire department's copy to be filed with F.P. 290 Part 2)

FO

Conservation Commission



Department of Public Safety Division of Fire Prevention and Regulation

	FIEVEIILIO	ii and negulatio	478
Notification for Underground Storage Tanks		STATE US	E ONLY
Submit to: LOCAL FIRE DEPARTMENT		D NUMBER FIRE DEPT.	15201
	CLOSURE	A. Date Entered Into Com B. Data Entry Clerk Initials C. Owner Was Contacted	
· INSTRUCTIONS		Clarity Responses, Con	
Please two or print in link all items except "sighature" in section must be completed for each location containing underground stora more than five (5) tanks are owned at this location, photocopy the sheets, and staple continuation sheets to the form.	ne tanks If		
GENERAL IN	FORMATION		
Motification is required by Federal iew for all underground tanks that have been used to store regulated substances elece January 1, 1984, that are in the ground as of May 3, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Researce Conservation and Recovery Act, (RCRA), as amended. The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored peroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or in the absence of such records, your knowledge, belief, or recollection. Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means— a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owne an underground storage tank used for the storage, use, or dispensing of regulated substances, and b) in the case of any underground storage tank in use before November 8, 1984, but no longer is use on that date, any person who owned such tank immediately before the discontinuation of its use. c) If the State agency so requires, any facility that has undergrone any changes to facility information or tank system status (only amended tank information needs to be included). What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground sping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. Gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or lumigants. What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded fro	Pipeline Satety Ac which is an intrasti & surface implet. Storm water 7. Sow-through B. Ilquid traps of production and gat 9. storage tank mineworking, drift, surface of the floor What Substance defined Environmental Res the exception of the RORA. It also included and 14.7 pounds p Where To Notif given at the top of it when To Notif been taken out of c by May 8, 1986. 2. 8, 1986, must notify Penalties: Any Information shall it	ities (including gathering lines) reg to f 1968, or the Hazardous Liquid its pipeline facility regulated under bundments, phs., ponds, or legoons or waste water collection systema; process tarties; or associated gathering lines direct hering operations; a situated in an underground area shaft, or tunnel) if the storage tanks that contain regulated as betance as hazardous in section 101 (14) c ponse, Compensation and Liability see substances regulated as hazardous or temperature and presser aquare inch absolute).	Pipeline Safety Act of 1979, or State laws; by related to oil or gas (such as a basement, cefar, it is situate upon or above the in requirements apply to under set. This includes any of the Comprehensive r Act of 1980 (CERCLA), with ridous waste under Subtitle C of 1980 (CERCLA), with ridous wa
I. OWNERSHIP OF TANK(S)		II. LOCATION OF TAN	K(S)
	If required by State, give Examples Lat, 42, 36	the geographic location of tanks by de 12 N Long. 85, 24, 17W	1 1
POLAROLD COR PORATION	Latitude 4	A2 C4.	tude 70,57,20 W
NEW PERSON AND CORAS	Facility Name or Con	(If same as Section I, mark box h pany She identifier, as applicable	ete H)
BRISTOL DENTERD MA OZJAS	TO LAR	BOLD CORHORA	TION
(508) - 998-5657	NEV D	ochaine blyd	07045
Phone Number (Incides Area Code)	IAEM D	EDFORD MA	02.142
	CHILTY	STOL	

III. TYPE OF OWNER	IV. I	NDIAN LANDS				
☐ Federal Government	Tanks are located on land within an Indian Reservation or on other trust lands. Tribe or Nation:					
State Government Private Local Government	Tanks are owned by native America nation, tribe, or individual.	an D				
	V. TYPE OF FACILITY					
Select the Appropriate Facility Description						
Gas Station	Railroad	Trucking/Transport				
Petroleum Distributor	Federal - Non-Military	Utilities				
Air Taxi (Airline)	Federal - Military	Residential				
Aircraft Owner	Industrial	Farm				
Auto Dealership	Contractor	Other (Explain)				

VI. CONT	ACT PERSON IN CHARGE OF TAN	KS				
Name Job Title RICHARO JOYCE POWER PLANT ENGINEER	Address POLAROLD GRP 100 DUCHAINE BLUD NEW BEDFORD, MA	Phone Number (Include Area Code) (508)-998-5647				
VII	. FINANCIAL RESPONSIBILITY					
I have met the fina accordance with 4	ancial responsibility requirements in 0 CFR Subpart H	X				
Check All that Apply						
X Self Insurance	Guarantee	State Funds				
Commercial Insurance	Surety Bond	Trust Fund				
Risk Retention Group	Letter of Credit	Other Method Allowed Specify				
j.	20.00	Committee Allowed Specify				
(1.5.00)		1				
VIII. 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.						
- opcuments, and that based on my inquity of those ind	camined and am familiar with the informatividuals immediately responsible for	mation submitted in this and all attached				
submitted information is true, accurate, and complete. Name and official title of owner	camined and am familiar with the informatividuals immediately responsible for o	mation submitted in this and all attached obtaining the information, I believe that the				
submitted information is true, accurate, and complete. Name and official title of owner or owner's authorized representative (Print)	camined and am familiar with the informatividuals immediately responsible for of signature	mation submitted in this and all attached obtaining the information, I believe that the Date Signed				
submitted information is true, accurate, and complete. Name and official title of owner	camined and am familiar with the informatividuals immediately responsible for a Signature	mation submitted in this and all attached obtaining the information, I believe that the Date Signed				

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EPA estimates public reporting burden for this form to average 30 minutes per response including time for reviewing instructions, gathering and maintaining the data needed and completing and reviewing the form. Send comments regarding this burden estimate to Chief, Information Policy Branch PM-223, U.S. Environmental Protection Agency, 401 M Street, Washington D.C. 20460, marked "Attention Desk Officer for EPA." This form amends the previous notification form as printed in 40 CFR Part 280, Appendix 1.

IX. DESCRIPTI	ON OF UNDER	ROUND ST	ORAGE TANKS (C	omplete for each t	ank at this location	n.) ii
Tank Identification Number		nk No.	Tank No. 2	Tank No. 3	Tank No.	Tank No.
Status of Tank (mark only one) Curre	ently in Use	X	X	X		
Temporarily	- 1					
Permanently	~ 1					
Amendment of I		3				
2. Date of Installation (mo./year)) 6	סרו	6170	6/70		
3. Estimated Total Capacity (gai		1.000	163,000	38,000		
4. Material of Construction			· ',	•		č
(Mark all that apply)	 		5.4	3.		
Asphalt Coated or	Bare Steel					
Cathodically Prote	cted Steel					
Epoxy Co	ated Steel					
Composite (Steel with F	iberglass)					
Fiberglass Reinford	ed Plastic					
Lin	ed Interior					
Dout	ble Walled					
Polyethylene Ta	ank Jacket					
	Concrete	X	\mathbf{X}	X		
Excava	ation Liner					
	Unknown					
Other, Pleas	se specify Figs	KGUKK/	Figetsuss!	FIREGUEL		
		CY CONTED	SOXY CONTEN	EPOXY COME)	
Has tank been	repaired?	No	No	NO		
5. Piping (Material) (Mark all that apply)	Bare Steel	X	7	Y		
	ized Steel	-				
	· ==		<u> </u>			<u> </u>
Fiberglass Reinforc						
	Copper					
Cathodically	()			<u> </u>		
Doub	oie Walled		4			
Secondary Cor	ntainment					
	Unknown	·				
Other, Pleas	se specify					
<u>si</u> ≡			•		-	
6. Piping (Type) (Mark all that apply)		1		A 4.		
(Mark all that apply)	ve at tank			F 5.		
(Mark all that apply) Suction: no val						
(Mark all that apply) Suction: no value Suction: value	ve at tank	X	X	X		
(Mark all that apply) Suction: no value Suction: value		X	X X	X		

Tank Identification Number	Tank No.	Tank No. 2	Tank No. 3	Tank No	Tank No.
7. Substance Currently or Last Stored In Greatest Quantity by Volume Gasoline Diesel Gasohol Kerosene Heating Oil Used Oil Other, Please specify					
Hazardous Substance CERCLA name and/or, CAS number	EUE OIL 68553-00-4	Fin OIL ₩6 6853-00-1	FUEL OIL # 2 68474-30-2		
Mixture of Substances Please specify					
	TANKS OUT OF U	JSE, OR CHANGE	IN SERVICE	I/A	
A. Estimated date last used (mo./day/year) B. Estimate date tank closed (mo./day/year)					
C. Tank was removed from ground D. Tank was closed in ground E. Tank filled with inert material Describe					
F. Change in service					
2. Site Assessment Completed					
Evidence of a leak detected					

XI. CERTIFICATION OF COMPLIA	MCE (COMPLETE	FOR ALL NEW A	ND OPGHADED	IANNO AT THIS L	OCATION)
Tank Identification Number	Tank No. 4	Tank No. 2	Tank No. 3	Tank No	Tank No.
1. Installation N/A		e.			ő.
 A. Installer certified by tank and piping manufacturers 					
B. Installer certified or licensed by the implementing agency					
C. Installation inspected by a registered engineer					
Installation inspected and approved by implementing agency					
E. Manufacturer's installation check- lists have been completed					
F. Another method allowed by State agency. Please specify.					
2. Release Detection (Mark all that apply)	TANK PIPING	TANK PIPING	TANK PIPING	TANK PIPING	TANK PIPING
A. Manual tank gauging	X	X	X		
B. Tank tightness testing					
C. Inventory controls					
D. Automatic tank gauging					
E. Vapor monitoring					
F. Groundwater monitoring	XX	XX			
G. Interstitial monitoring double walled tank/piping					
H. Interstitial monitoring/secondary containment					
L. Automatic line leak detectors					
J. Line tightness testing					
K. Other method allowed by Implementing Agency. Please					
specify.					
3. Spill and Overfill Protection.					
A. Overfill device installed					
B. Spill device installed					
OATH: I certify the information concerning in Installer:	stallation that is pr			t of my belief and	ŽI.
Name			Signature		Dale
Pasition				Company	

CILL OF HEW BEDFURD



LICENSE

To Use a Building or Other Structure for the Keeping, Storage on Sales of

CRUDE PETROLEUM

Fee \$35.00

Site Approved:

previous license: 6/26/70

or any of its Products
UNDER GENERAL LAWS,
CHAPTER 148, AS AMENDED

· · · · · · · · · · · · · · · · · · ·
This is to certify that on Oct. 22, 1970
the City Council granted a license to use the land at
. Industrial Park-south end of Duchaine Blyd.
(Polaroid Property)
on application of Polaroid Corp.
for keeping, storage oxessite of products of crude petro-
leum, hereinafter specified, the premises, buildings or
structures to be used being described as follows:
Building is constructed ofconcrete and is used asmanufacturing plant
Products of crude petroleum to be kept, as well as number, kind and capacity of containers to be used
Class C (#6 fuel oil): 1 und. concrete tank
Class B (#2 fuel oil): 1 und. concrete tank
38,000 gals. Class A fluids-1000 gals. in 5 and 55 gal. drums (above ground set on covered concrete pad) Class A fluids-1 und. tank in 2 sections
Class A fluids - 5 und. tanks -8,000 gals. each Approved subject to compliance with the rules and regula-
tions as enforced by the Chief of the Fire Department.
Cllen M. Lingful V. City Clerk
CERTIFICATE OF REGISTRATION MUST BE FILED ANNUALLY ON OR BEFORE APRIL 30
POST THIS LICENSE ON LICENSED PREMISES

•	•		~	*	
Notification for Removal or Cl	osure of in Place Storage	Tanks i	Regula	tad Unde	527 CMR 9 00
 			3		

Forward completed form, signed by local fire department, to: Mass. UST Compliance Unit, Dept. of Fire Services, P.O. Box 1025 - State Road, Stow, MA 01775					Dept. Use Or	ly
Telephone (978) 567-3710					Received:	124/99
(Fire Department retains one copy of FP-290R)					ept. ID# ept. Sig	
This form is to be used for notification for rem	noval of Undergro	ound Storage Ta	nks/	State	Use Only	
if a storage facility has UST's which are to re (long form) must be filed.	main in use, an e	intire amended l	-P-290	_	cility Number te Entered	
Note: "Facility street address" must include both a street number and a street name. Post office box numbers are not acceptable, and will cause a registration to be returned. If geographic location of facility is not provided, please Indicate distance and direction from closest intersection, e.g., (facility at 199 North Street is located) 400 yards southeast of Commons Road (Intersection).					erk's Initials mments	
I. Ownership of Tank(s)		II. Loc	OFTA	N OF TANK	(s)
Owner Name (Corporation, Individual, Public Agency, or POLAROLD CORPORATION	Latitude 4	ple: Lat. 42. 1, 42, 51	36, 12 N , N	n of tanks by dagre Long. 85, 24, 17W Longitude 70		
100 DUCHAINE BOULE	VARD	POLARO LD CORPORATION Facility Name or Company Site identifier, as applicable				
NEW BEDFORD MA BAISTOL	02'745 20'03'	STORM ACCUSED D.C. BOX TOX RECORDED IN SECULO ADDOVE) NEW BENFORD MA 02745				
781-386-7374 Price Number (Include Area Code) Owner's Emplo	BRIS			Sale	Zip Cook	
III. TANKS/	PIPING REMO	OVED OR FIL	LED IN	PLAC	E ×	
Tank Number	Tank No.	Tank No. 2	Tank No.	3	Tank No	Tank No
Tank/Piping removed or filled in place (mark all that apply)	23*					
A. Substance last stored	46 FUEL	# 6 FUEL	#2F			
B. Tank capacity gallons	167,000	168,000	38,00	o o		
C. Estimated date last used (mo./day/yr.)	12/20/98	A 15 197	6/301	92		
D. Estimated date of removal (mo./day/yr.)	N/A	NIA	MA		-	
E. Tank was removed from ground						
F. Tank was not removed from ground	X	X				
Tank was filled with Inert material	NA	NA	NA			
Describe material used:	SEE AT	ACHEO (9	/3 <u>/98-</u>	<i>HARSO</i>	WS I+TO	RUUP) .
G. Piping was removed from ground						
H. Piping was not removed from ground			X			
I. Other, please specify				}	<u> </u>	
7-290R (revised 5/98)						

. พเนา อ27 CMM 9.00 A. Svidence of leak detected	Yes Divo	DYes DNo	MYes Line	[] Yes No		No
B. Mass. DEP notified 1. Mass. DEP tracking number 2. Agency or company performing	f.l Yes X No	□ Yes: MNo	11 Yes KNo	LIYes IINo	1 Yes	No No
contamination assessment * *527 CMR 9.07 (J), see "Commonwealth of Massachusetts, Underground Storage Tank Closure Assessment Manual" April 9, 1996 DEP Policy #WSC-402-96				10		-
I declare under penalty of perjury that I have all attached documents, and that based on a tion, I believe that the submitted information	personally examing inquiry of those is true, accurate, a	ned and am fam individuals imm and complete.	illar with the info ediately respons	rmation submi ible for obtaini	itted in this a	nd a-
Name and official title of owner or owner's authorized representative (Print)	Signature:				Date:	_
STEPHEN A KECHES DIRECTUR OF MANUFACTURING OPERATIONS	Dy.	All			9/20/99	_

×

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PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP INC.

30 Dan Road • Canton, Massachusetts 02021-2809 • (781) 401-3200 • Fax: (781) 401-2575

September 3, 1998

Mr. Richard Chandler
Environmental Manager
Polaroid Corporation
100 Duchaine Boulevard, Bldg NB1
New Bedford, MA 02745

Project:

NB2 Oil Tanks Installation

New Bedford, MA Job No. 732140-02000

SUBJECT:

Abandonment In-Place of Concrete Bunkers Classified

as Underground Storage Tanks (UST)

Letter No. PP-23

Dear Mr. Chandler:

The purpose of this letter is to present the possible consequences of abandonment in-place of two concrete bunkers that are classified as UST, in accordance with Board of Fire Prevention Regulations.

BACKGROUND

The Board of Fire Prevention Regulations, 527CMR9.07(J)(1), requires that Underground Storage Tanks (UST) which are to be abandoned in-place must be filled with a concrete slurry mix or other inert material approved by the Marshall.

The USTs consist of three concrete bunkers, ten feet deep, with a common concrete slab foundation. The bunkers are separated with one-foot thick concrete walls, and are covered with a concrete roof.

• The two larger bunkers are each nominally 50 ft. x 50 ft. in plan, and have a storage capacity of 150,000 gallons. The roofs of these bunkers each support a cooling tower. Low concrete walls (18 inches) constructed around the perimeter enable the roofs to also serve as a basin for the collection of the cooling tower condensate water. The south bunker has been cleaned out, and will be used as a vault for the construction of three 23,000 gallon steel fuel oil storage tanks. The north bunker is proposed to be abandoned in place after all oil has been pumped out. The bunker will not be used for oil storage effective December 22, 1998.



Mr. Richard Chandler Polaroid Corporation September 3, 1998 Page 2

> The third bunker is nominally 20 ft. x 20 ft. in plan with a storage capacity of 40,000 gallons, and is located on the east side of the north bunker. Any oil previously stored in this bunker has been pumped out, the bunker has been cleaned and is proposed to be abandoned in place.

POSSIBLE CONSEQUENCES OF ABANDONMENT IN-PLACE BY FILLING WITH CONCRETE

Soil conditions underlying the site of the existing USTs are described in a report prepared by Haley & Aldrich Inc. in June 1995 (Ref. 1). The report recommends an allowable bearing pressure of 3,000 psf for shallow foundations (footings and mats) constructed at this area of the Polaroid site. Estimated settlement at this bearing pressure is 1 inch total and 3/4 inch differential.

The maximum foundation loading which the soils underlying the existing USTs have experienced is approximately 1,200 psf. This includes the weight of concrete structure, fuel oil, cooling tower, and water contained in the cooling tower basin. If the north 150,000 gallon UST and the 40,000 gallon UST are filled with concrete, the foundation loading will become non-uniform. Soil bearing pressure below the concrete-filled north end of the structure will increase to about 2,500 psf., whereas the soil bearing pressure below the south end of the structure will reduce to less than 1,000 psf. This non-uniform loading will tend to produce non-uniform settlement of the structure towards the heavier north end. The magnitude of differential settlement is expected to be on the order of 1/2 inch.

Differential movement of this magnitude could be a concern with respect to the existing cooling water piping which runs underground from the boiler house to the cooling tower basin pump chamber and the fuel oil piping that runs underground from the boiler house to the pump room adjacent to the concrete bunkers. These rigid, heavy-wall pipes could be overstressed and might fail if subjected to excessive movement where they enter the concrete structure. In addition, differential movement could overstress portions of the structure itself, resulting in damage or failure.

If cracks should occur within the structure, leakage of cooling water either through the basin to the South bunker or through the wall of the sluice and wet well to the surrounding soils could result. In either case, the cooling tower could be rendered inoperative and could be damaged sufficiently so as to necessitate its demolition. Should the existing cooling tower become inoperative or require demolition, Polaroid would have to incur the expense of its replacement and the potential loss of production for lack of process cooling capability.

Mr. Richard Chandler Polaroid Corporation September 3, 1998 Page 3

If you have any questions regarding the contents of this letter, please feel free to contact me at (781) 401-2555.

Very truly yours,

PARSONS INFRASTRUCTURE & TECHNOLOGY GROUP, INC.

Damodar R. Pandit, P.E. Chief Civil & Structural Engineer

REF. 1 Haley & Aldrich Inc. Report on Subsurface Investigations and Foundation

Design Recommendations, Polaroid Corporation, NB2 Utilities Improvements,

New Bedford, MA, 19 June 1995.

cc: Richard Trinidad, Polaroid

William Bodtman, Parsons

Anil Wagle, Parsons

PARTICINE INCOMERNING SCIENCE, INC.
POLAROID CORPORATION
NET HEDRORD, MA CONCEPTUAL LAYOUT OF FUEL OIL STORAGE TANKS CASE I NORTH BUNKER DICORPOR No. 2 DIL BUNKER SLAB SUPPORT COLUMNS (TYPICAL) 45'-4" ·8-.91-COOLING TOVER SUPPORT COLUMNS (TYPICAL) The same -16-4-PLAN VIEW 1 DOORVAY OIL TO BOILERS PUMP ROOM SCALE 1'=10' -8--66--16'-4'-PUMP PUMP PARTITION -46.-4 - FEATING-4.-2. -16'-4'-SOUTH BUNKER SLAB SECTION 13' X 13' STAIRWAY-VELD/JOINT (TYPICAL) VCVD/SQTVB000E0UBB3/V221E/CV2E(TDAG 1.020

#21389

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