

Harbeck Pump Station

General Site and Safety Considerations

Wednesday, December 02, 2015

GENERAL SITE CONDITION/ACCESS

Vehicle Entrance and Exit to Site	Driveway between two houses
Parking	On street or on driveway
Sight lighting Fixture	None

SAFETY CONSIDERATIONS

General Site Safety Issues	Surge anticipator vault hatch - need hinges or lid will fall and break tubing
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Clam shell Pistons need to be replaced/upsized

SITE SECURITY

Facility Fenced	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Privacy Fence	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Fence Material	Cedar	Height of Fence	6 feet
Method of Securing Access Gates	Chain and padlock	Fence Topping	None
Adequate security for keeping public off site?	Yes		

Notes:



General Site Photos

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Station access through cedar gates



Station access through cedar gates



Driveway extends to back of adjacent property lot lines



Station is tucked in behind residential property



Generator located behind station

Equipment Housing

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Equipment Housing	<input type="checkbox"/> Building	<input checked="" type="checkbox"/> Enclosure	<input type="checkbox"/> Other		
Condition	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Criticality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4	
Serviceability	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	

Structural Materials	Fiberglass clam shell
Age	Installed 1999

Locking Doors	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Intrusion Alarm	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Dimensions:

Length	6	ft
Width	6	ft

HVAC:

Heat	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Cooling	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Humidity Control	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Fan	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Notes:



Equipment Housing Photos

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Suction and discharge headers



Full clam shell open



Control panel side

Flow Meter and Vault(s)

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Flow Meter	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Asset Nos.	
Location.	
Type/Manufacturer	
Age	

Vault	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
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Description	Surge anticipator vault
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Condition	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input checked="" type="checkbox"/> 5
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Criticality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
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Serviceability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
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Structural Materials	Concrete with metal plate covers
Dimensions	4' x 5' x 6' deep
Age	Installed 1999

Access Hatch Fall Protection	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Access Hatch Lock	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Intrusion Alarm	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Notes:

Steel covers are not hinged and can easily fall into the vault, likely damaging the surge anticipator valve in the process. Recommend replacing lid or adding hinges and a lock.



Flow Meter and Vault(s) Photos

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Surge anticipator vault hatch - steel plates without hinges



Surge anticipator valve

HARBECK #1

Wednesday, December 02, 2015

Suction Zone	1108.5	Discharge Zone	1210
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Pumping System No. 1

Condition 1 2 3 4 5

Criticality 1 2 3 4

Serviceability 1 2 3 4

Pump Type Vert. Turb. End Suction Split case In-line centrifugal

Mounting Horizontal Vertical

Pump from Piping Can Basin/Clearwell

Pump to Closed zone Pressure tank Reservoir

Asset no.	P-7-18-1
Manufacturer	Grundfos
Model	CR16-3012
Serial #	B33006062P19842
Age	Installed 1999

Rated Design Pt 84 gpm @ 112 feet TDH

Ability to Isolate Pump Yes No

How to Remove Pump Manual

MOTOR

ODP TEFC TENV TEBC Diesel Engine Other

Horsepower 5 Voltage Phase 3 rpm 3450

Manufacturer	Baldor
Model	Unknown
Serial #	F0608010474
Age	Installed 1999

Inverter duty rated? Yes No Unknown

Motor Driver VFD Soft Starter FVNR Starter None

Notes:

Pump runs nearly continuously. Potentially good candidate for pressure tank.



Valves and Gauges

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Check/Control Valve	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.		
Type/Manufacturer	Wafer check	
Age	Installed 1999	

Isolation Valve(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.		
Type/Manufacturer	1/4 turn butterfly 3"	
Age	Installed 1999	

Pressure Gauge(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Asset Nos.	PIT-7-18-1 Suction Pressure Transmitter PIT-7-18-2 Discharge Pressure Transmitter	
Type/Manufacturer	Ashcroft - 0-60psi Ashcroft - 0-300psi	
Age	Installed 1999	

Notes:



Piping

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Common Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	8"
Pipe material	Galvanized steel
Age	Installed 1999

Pump Specific Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	3" to 2"
Pipe material	Galvanized steel
Age	Installed 1999

Pump Specific Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	2" to 3"
Pipe material	Galvanized steel
Age	Installed 1999

Common Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	8"
Pipe material	Galvanized steel
Age	Installed 1999

Notes:



Pump/Valve/Piping Photos

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Pumping System No. 1



Pumping System No. 1 pump nameplate



Pumping System No. 1 discharge check valve



Pumping System No. 1 motor nameplate

HARBECK #2

Wednesday, December 02, 2015

Suction Zone	1108.5	Discharge Zone	1210
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Pumping System No. 2

Condition 1 2 3 4 5

Criticality 1 2 3 4

Serviceability 1 2 3 4

Pump Type Vert. Turb. End Suction Split case In-line centrifugal

Mounting Horizontal Vertical

Pump from Piping Can Basin/Clearwell

Pump to Closed zone Pressure tank Reservoir

Asset no.	P-7-18-2
Manufacturer	Grundfos
Model	CR16-3012
Serial #	B33006062P19842
Age	Installed 1999

Rated Design Pt 84 gpm @ 112 feet TDH

Ability to Isolate Pump Yes No

How to Remove Pump Manual

MOTOR

ODP TEFC TENV TEBC Diesel Engine Other

Horsepower 5 Voltage Phase rpm

Manufacturer	Baldor
Model	Unknown
Serial #	
Age	Installed 1999

Inverter duty rated? Yes No Unknown

Motor Driver VFD Soft Starter FVNR Starter None

Notes:



Valves and Gauges

Wednesday, December 02, 2015

Check/Control Valve	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.		
Type/Manufacturer	Wafer check	
Age	Installed 1999	

Isolation Valve(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FV-7-18-2-1, FV-7-18-2-2	
Type/Manufacturer	BV/Grinnell, series 8000	
Age	Installed 1999	

Pressure Gauge(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Asset Nos.	See pumping system no. 1 for common pressure gauge information	
Type/Manufacturer		
Age		

Notes:



Piping

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Common Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	8"
Pipe material	Galvanized steel
Age	Installed 1999

Pump Specific Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	3" to 2"
Pipe material	Galvanized steel
Age	Installed 1999

Pump Specific Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	2" to 3"
Pipe material	Galvanized steel
Age	Installed 1999

Common Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	8"
Pipe material	Galvanized steel
Age	Installed 1999

Notes:



Pump/Valve/Piping Photos

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Pumping System No. 2



Pumping System No. 2 nameplate



Pumping System No. 2 and common suction/discharge piping

HARBECK #3

Wednesday, December 02, 2015

Suction Zone	1108.5	Discharge Zone	1210
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Pumping System No. 3

Condition 1 2 3 4 5

Criticality 1 2 3 4

Serviceability 1 2 3 4

Pump Type Vert. Turb. End Suction Split case In-line centrifugal

Mounting Horizontal Vertical

Pump from Piping Can Basin/Clearwell

Pump to Closed zone Pressure tank Reservoir

Asset no.	P-7-18-3
Manufacturer	PEERLESS
Model	C1250-AM-BF
Serial #	218564
Age	Installed 1999

Rated Design Pt 1200 gpm @ 125 feet TDH

Ability to Isolate Pump Yes No

How to Remove Pump Manual

MOTOR

ODP TEFC TENV TEBC Diesel Engine Other

Horsepower 50 Voltage Phase rpm

Manufacturer	Unknown
Model	Unknown
Serial #	
Age	Installed 1999

Inverter duty rated? Yes No Unknown

Motor Driver VFD Soft Starter FVNR Starter None

Notes:



Valves and Gauges

Wednesday, December 02, 2015

Check/Control Valve	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.		
Type/Manufacturer	Wafer	
Age	Installed 1999	

Isolation Valve(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reported/Exterior Condition	No issues noted.	
Asset Nos.	FV-7-18-3-1, FV-7-18-3-2	
Type/Manufacturer	BV/Grinnell, Series 8000, 8" suction, 6" discharge. Both 1/4 turn butterfly	
Age	Installed 1999	

Pressure Gauge(s)	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Asset Nos.	See pumping system no. 1 for common pressure gauge information	
Type/Manufacturer		
Age		

Notes:



Piping

Wednesday, December 02, 2015

Common Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	8"
Pipe material	Galvanized steel
Age	Installed 1999

Pump Specific Suction Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	8"
Pipe material	Galvanized steel
Age	Installed 1999

Pump Specific Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	6"
Pipe material	Galvanized steel
Age	Installed 1999

Common Discharge Pipe

Reported/Exterior Condition	No issues noted.
Pipe size	8"
Pipe material	Galvanized steel
Age	Installed 1999

Notes:



Pump/Valve/Piping Photos

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Pumping System No. 3



Pumping System No. 3 motor and common pressure gauges



Pumping System No. 3 pump nameplate

Backup Power

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BACKUP POWER

Source	<input type="checkbox"/> None	<input type="checkbox"/> Pig tail for portable	<input checked="" type="checkbox"/> On-site, permanent
Transfer Switch	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Type	<input type="checkbox"/> Manual	<input checked="" type="checkbox"/> Auto	

Notes:

STANDBY GENERATOR

Condition	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Criticality	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 3	<input type="checkbox"/> 4	
Serviceability	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	
Asset No.					
Manufacturer	Katolight				
Model	N70FRG4				
Serial #	LN321235				
Age(s)	Installed 1999				
Electrical capacity	KW	70	Voltage		Phase(s)
Fuel type	<input type="checkbox"/> Diesel	<input checked="" type="checkbox"/> Nat. Gas	<input type="checkbox"/> Propane	<input type="checkbox"/> Gasoline	<input type="checkbox"/> Other
Full load fuel demand		gal/hr			
Fuel stored on-site	N/A	gal			

Notes:



Backup Power Photos

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Backup power generator nameplate



Backup power generator