

MAIN INSTALLATION CHECKLIST

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If an item is marked Unsatisfactory, Not Applicable, or Not Checked, an explanation must be included in this report.

Operator: AMEREN ILLINOIS COMPANY	Operator ID#: 32513
Inspection Date(s): 8/13/2013	Man Days: 1
Inspection Unit: Glasford Storage	
Location of Audit: Glasford	
Exit Meeting Contact: J.R. Jennings	
Inspection Type: Design Testing and Construction	
Pipeline Safety Representative(s): Jim Watts	
Company Representative to Receive Report: Michael Fuller	
Company Representative's Email Address: mfuller2@ameren.com	

CONSTRUCTION INFORMATION		
Location of Construction: Ameren Illinois Glasford Storage near Cilco 7 well site located in the south section of the storage field.	Construction Performed By: KS Energy New Berlin, Wisconsin	
Contractor Foreman:	Dave Stinnett	
Operator Inspector:	Third Party Inspector, Harvey Schofield.	
Person(s) On Job Site		
Dave Stinnett - Foreman	Lee Snelson - Laborer	Terry Schutt - Welder
Robert Crabtree - Welder	John Borden - Welder Helper	Charles Rhodes - Operator
Chuck Teppe - Ameren QA		
Description of Construction:		

MAIN INSTALLATION		Status
[192.55]	Steel	Yes
[192.59]	PE	No
[192.59]	Other	No
<u>General Comment:</u> <i>No other type of piping was being used.</i>		
[192.5]	Class location :	One (1)
[192.619,192.621,192.623]	MAOP	386

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[192.63]	Pipe Size :	12 and 16 inch
[192.55,192.59]	Specification :	Api 5L
[192.55,192.59]	Manufacturer :	Mid States
[192.55,192.59]	Pipe Grade :	X52
[192.55,192.59]	Wall Thickness :	.375
[192.63(a)(2)]	Are pipe, valves, and fittings properly marked for identification?	Satisfactory
[192.227]	Date of Welder qualification:	6-10-2013 5-20-2013
[192.227]	Welder's Name:	Terry Schutt Robert Crabtree
[192.225,192.275,192.277,192.279,192.283]	Is pipe joined in accordance with approved written procedures?	Satisfactory
General Comment:		
<i>Welding procedure Ameren-003 was utilized for the butt welds and Ameren F-01 was utilized for the fillet welds. Voltage and amperage tests were performed by Staff and Ameren QA personnel and determined the welders were welding within the parameters of the above welding procedures.</i>		
[192.285]	Date of Plastic Joining Qualification :	Not Applicable
General Comment:		
<i>No plastic pipe was installed during the audit.</i>		
[192.285]	Joiner's name:	Not Applicable
General Comment:		
<i>No plastic pipe being installed.</i>		
[192.455]	Is buried metallic pipe coated?	Satisfactory
General Comment:		
<i>17 mils minimum of Valspar 2000 Epoxy Coating</i>		
[192.461]	Does coating meet 192.461?	Satisfactory
[192.455(a)(1)]	Is cathodic protection being provided?	Not Checked
General Comment:		
<i>No piping was installed during the inspection. Staff observed welding and pipe fabrication.</i>		
[192.455(a)(1)]	Is cathodic protection being provided? By Anodes:	No
General Comment:		
<i>The storage field piping is protected by rectifiers.</i>		
[192.455(a)(1)]	Is cathodic protection being provided? By Rectifier:	Yes
General Comment:		
<i>As the new piping is installed it will be protected using rectifiers.</i>		

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[192.461(c)]	Is coating inspected just prior to being installed in the ditch?	Not Checked
General Comment: <i>No piping was installed during the inspection.</i>		
[192.467]	Are pipelines electrically isolated from other underground metallic structures?	Not Checked
General Comment: <i>Electrical isolation is accomplished using insulated flanges at the well houses to isolate the storage field piping from the down hole well piping. The below grade well piping is cathodically protected with the current flowing through a resistor from the storage field piping to adequately protect the well piping.</i>		
[192.479]	Are above ground facilities cleaned and coated or jacketed as needed?	Not Checked
General Comment: <i>No above ground piping was installed during the audit. The project includes funding for painting of the aboveground piping being installed during this project.</i>		
[192.303]	Are comprehensive written construction specifications available and adhered to?	Satisfactory
General Comment: <i>Construction procedures were present on site. Mr. Schofield had a current copy of the Ameren Illinois O&M and construction procedures present on site.</i>		
[192.305]	Are inspections performed by the operator to check adherence to the construction specifications?	Satisfactory
General Comment: <i>Mr. Schofield is a third party inspector hired by Ameren Illinois to observe and direct the contractor performing the piping installation.</i>		
[192.307]	Is material being visually inspected at the site of installation to ensure against damage that could impair its serviceability?	Satisfactory
General Comment: <i>Piping inspections were being performed prior to the pipe being setup for prefab.</i>		
[192.319]	Is ditch back-filled to provide firm support and prevent damage to pipe or coating?	Not Checked
General Comment: <i>No piping was installed during the audit to confirm backfill procedures.</i>		
[192.321(c)]	Is plastic pipe installed as to minimize shear and tensile forces?	Not Applicable
General Comment: <i>No plastic piping will be installed during this project.</i>		
[192.321(e)]	Does plastic pipe have means of locating while underground?	Not Applicable
General Comment: <i>No plastic pipe was installed during the audit.</i>		
[192.325]	Are required clearances from underground structures being	Not Checked

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	maintained?	
<u>General Comment:</u>		
<i>No piping was observed being installed to determine if clearance requirements are being met.</i>		
[192.327]	Is required cover being obtained appropriate to type of pipeline and location?	Not Checked
<u>General Comment:</u>		
<i>Cover requirement was not reviewed because no piping was installed in the ditch during the audit.</i>		
[192.503]	Are general testing requirements being met?	Not Checked
<u>General Comment:</u>		
<i>No pressure testing was performed during the audit the piping will be hydro tested prior to installation.</i>		
[192.517]	Are records being made of strength and leak tests?	Not Checked
<u>General Comment:</u>		
<i>No pressure testing was observed during the audit. The project prints have the pressure test requirements defined and a section to record the test results when completed.</i>		
[192.807]	Were covered employees Operator Qualification records reviewed to ensure qualification?	Satisfactory
<u>General Comment:</u>		
<i>Staff reviewed the qualifications of the KS Energy personnel and confirmed the welder's qualification dates.</i>		
[192.805(c)]	Were non-qualified personnel being "directed and observed" by a qualified individual?	Not Applicable
<u>General Comment:</u>		
<i>No non qualified personnel were present on site performing covered tasks.</i>		
[192.805(c)]	Were span of control limitations being followed?	Not Applicable
<u>General Comment:</u>		
<i>No non qualified personnel were present on site.</i>		
Was a Protocol 9 (Form 15) Completed?		Yes
[192.614]	Were One Call Notifications performed as required?	Satisfactory
<u>General Comment:</u>		
<i>KS Energy was working under current JULIE dig tickets that were preset on site.</i>		
[192.614]	Dig Ticket #	A2132654

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