

WATER PERMIT NO. 6325-3

Name of Applicant: VeraSun Energy

Address: 100 22nd Ave, Suite 103, Brookings SD 57006

Phone: 605 696-7205

Amount of Water Claimed: 2.67 cfs

Total Acres: NA

Source of Water Supply: groundwater (3 wells)

Water to be used for: industrial

County: Brookings

Type of Waste Disposal System:

Location: north of Aurora

PRIORITY Date Received: 5-21-2002

Fee: \$600

Corrected Application Received: 5-30-2002

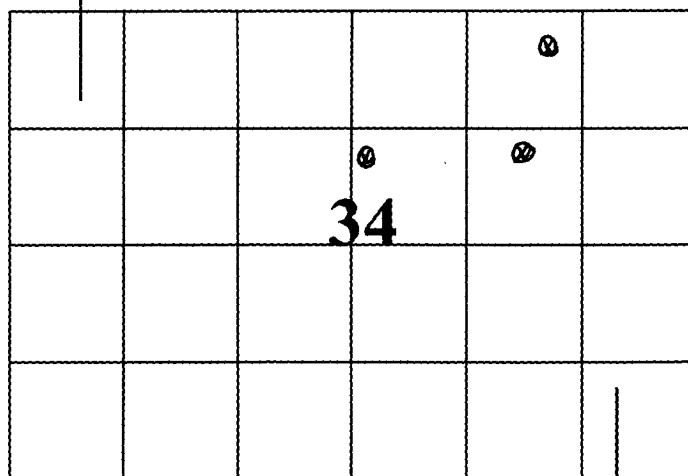
Period of Annual Use: January 1 – December 31

Remarks:

Diversion Point: NE ¼ NE ¼, SE ¼ NE ¼, SW ¼

NE ¼ Section 34-T110N-R49W

Land to be Irrigated: NA



Depth of Well: 60 feet

Well Driller: : Geotek Engineering & Testing

Remarks:

Type of Map: plat

Prepared by: Daryl C. Englund, PE

Reviewed and the Number Assigned on: 5-30-2002

By: **Karen Schlaak**

Notice of Hearing - date to intervene: _____

SOUTH DAKOTA
WATER PERMIT NO. 6325-3

Date of first receipt of application May 21, 2002.

Date of return to applicant for corrections, amendments or changes May 21, 2002.

Date of receipt of corrected application May 30, 2002.

The Water Management Board approved Water Permit No. 6325-3 on September 25, 2002 for VeraSun Energy, 100 22nd Ave, Suite 103, Brookings SD 57006 authorizing the construction of the water use system and the placing of water to beneficial use subject to the following limitations, conditions and qualifications:

1. Water Permit No. 6325-3 appropriates 2.67 cubic feet of water per second (1935 acre-feet annually) from three wells (Big Sioux: Aurora Aquifer) 60 feet deep located in the NE ¼ NE ¼, SE ¼ NE ¼ & SW ¼ NE ¼ Section 34-T110N-R49W.
2. The water appropriated shall be used for the purpose of industrial use in an ethanol production plant and may not exceed the amount of water needed for beneficial use.
3. The water is to be used during the following described annual period: January 1 – December 31.
4. The date from which applicant may claim right is May 21, 2002.
5. One-fifth of the construction is to be completed on or before March 25, 2005.
6. All construction is to be completed on or before September 25, 2007.
7. Water is to be put to beneficial use on or before September 25, 2011.
8. Water rights obtained in compliance with the laws of the State of South Dakota may not be unlawfully impaired by this appropriation.

QUALIFICATIONS

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 6325-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. VeraSun Energy shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux: Aurora Aquifer.

WATER MANAGEMENT BOARD

By: Garland Erbele
Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

OCT 18 2002

date



FORM 2: Application for uses other than irrigation
(type or print)

RECEIVED

MAY 21 2002

WATER RIGHTS
PROGRAM

Mail to: Water Rights Program Joe Foss Building 523 E. Capitol Pierre, SD 57501-3181 (605) 773-3352	No. <u>6325-3</u>	(office use only) Hydrologic Unit <u>10170202</u>
	Basin <u>Sioux River</u>	
	Newspaper <u>Brookings Register, Brookings SD 57006</u>	

Application For Permit To Appropriate Water Within The State Of South Dakota

Check use(s) of water:

☐ Municipal	☐ Suburban Housing	☐ Recreational	☐ Institutional
☐ Rural Water System	☐ Commercial	☐ Fish & Wildlife	☐ Geothermal Heat
☐ Domestic (over 18 gpm)	☒ Industrial	☐ Other	

Type of Application: ☒ New ☐ Vested Right (Use predates Mar 2, 1955) ☐ Future Use Reservation
(check one) ☐ Place to Beneficial Use Water Reserved by Future Use Permit No. _____
☐ Amendment/Correction to Permit No. _____

Description of amendment/correction: (i.e. change diversion point(s), add diversion point(s), change use, etc.) _____

1. Name of Applicant VeraSun Energy Phone 605-696-7205
(check one) ☒ Owner ☐ Tenant/lessee
Mailing Address 100 Twenty-Second Avenue, Suite 103, Brookings State SD 57006
(Street, RR, or Box and City) (Zip Code)

2. Amount of water claimed 2.67 *CFS or 1200 **GPM 1,934.7 ***AF
(*Cubic Feet per Second) (**Gallons per Minute) (***Acre Feet - storage capacity of dam/dugout or annual use if applicable)

3. Source of water supply Three manifolded wells

4. Location of point of diversion (example - 3 wells in SW1/4 NE1/4 section 12-T104N-R53W) NE 1/4 NE 1/4, SE 1/4 NE 1/4 + SW 1/4 NE 1/4
NE 1/4, NE 1/4 Section 34, Township 110 North, Range 49W
County Brookings County

5. County or counties where water will be used Brookings

6. Annual period during which water is to be used 12-Months, Continuous Operation Jan 1-Dec 31

7. Give a description of the project. When available include any preliminary engineering report or other reports or information that will help explain the project. (Attach sheet if more space is needed)

VeraSun Energy is permitting the construction of a new fuel-grade ethanol production plant which has the capacity to produce 100 million gallons of denatured ethanol on an annual basis. The basis for the production of ethanol is to convert cornstarch to sugars and then convert the sugars to ethanol (i.e. grain alcohol).

STATE OF SOUTH DAKOTA)
County of Brookings SS

Attachments: Attach Form 2A if diversion is from a well or dugout, or if storage of water is proposed. Attach map and any other technical information. (see instructions)

I, Matt Janes, the applicant, certify that I have read this application, have examined the attached map and that the matters stated are true and that I intend, and am able to complete the necessary construction.

Applicant's signature Matt Janes

Subscribed and sworn to before me this 16 day of May 20 02

Shari R. Longwell

Comm. Exp. 3-31-2004

(type or print in ink)

1. Well Information - Proposed Construction

- a) Drill Hole Diameter 28 Inches Depth 60 Feet
- b) Casing Type Steel Diameter 12-14 Inches Thickness 0.375 Inches
- c) Screen Type Stainless Steel Diameter 12-14 Inches Thickness _____
- d) Gravel Pack 7 Inches Length of Gravel Pack 45 Feet
- e) Depth to Top of Water Bearing Material 12 - 14 Feet
- f) Depth to Water (ground surface to water level) 12 - 14 Feet
- g) Distance to nearest existing domestic well: Estimated 2000 Feet
- On applicants property _____ On property owned by others X

2. Wastewater Disposal System Information

- a) Type of System (i.e. septic tank, drain field) Septic Tank/Drain Field
- b) System Capacity (gallons) Yet to be determined Year Constructed Yet to be constructed
- c) Connected to the City of NA Sanitary System NA

3. Dugout Information

- a) Surface Dimensions NA Depth _____
- b) Depth to water (ground surface to water level) _____

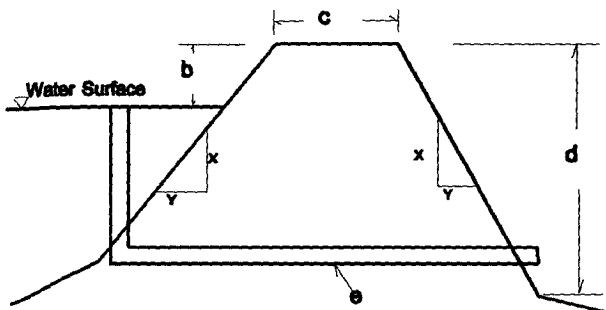
4. Water Storage Dams

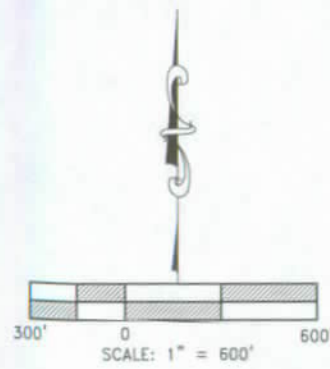
If the proposed water use system contains one or more storage dams, please furnish the information requested below for each dam. The locations of the dams need to be shown on the map submitted with the application.

- a) If a private engineering firm or government agency was involved in the design of this dam, please give their name and address:

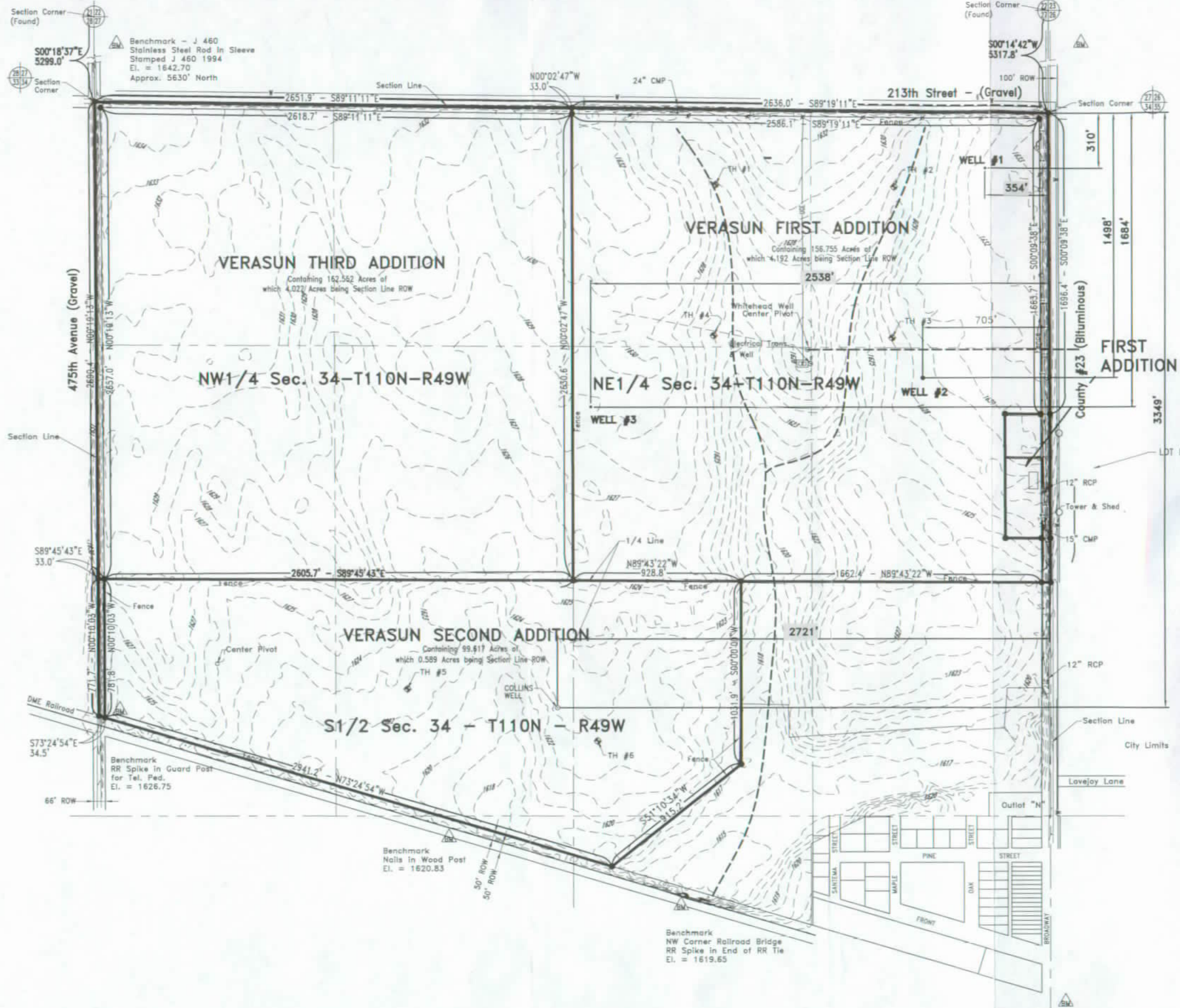
NA

- b) Freeboard _____
- c) Crest Width _____
Crest Length _____
- d) Height _____
- e) Primary Outlet Capacity _____
If pipe, diameter _____
- f) Secondary Spillway Capacity _____
Spillway Width _____
- g) X & Y Slope _____
Upstream _____
Downstream _____
- h) Surface Area of Impoundment _____
- i) Storage _____ Acre Feet
- j) Drainage Area Above Dam _____ Acres





5-14-02



DRAWN BY: L.B.K.	REVIEWED _____ DATE : _____ FOR _____
DESIGNED BY: K.J.K.	REVIEWED _____ DATE : _____ FOR BANNER ASSOCIATES, INC.
CHECKED BY: D.C.O.	

BANNER
BANNER ASSOCIATES, INC. • CONSULTING ENGINEERS & ARCHITECTS
409 22nd Av S • P.O.Box 298 - Brookings, SD 57006 • (605)692-6342

REVISION	DATE	DESCRIPTION	BY	CK'D

Brookings County Ethanol Facility Aurora, South Dakota

WELL LOCATION LAYOUT

SCALE : As Shown JOB NO : 20167.00.01 DATE : May 02

SHEET NO. : **FIG. 5.4**

6325-3

Record 26 of 84

Location Information

Legal Location: SE SE SE SW SEC. 27, T. 110 N., R. 49 W.
County: BROOKINGS Location: 110N-49W-27CD
Basin: BIG SIOUX Latitude: 44 17' 55"
Hydrologic Unit Code: 10170202 Longitude: 96 41' 59"
Land Owner: D. BOZEID Ground Surface Elev. (ft.): 1632 T

Project Information

Project: IRRIGATION WELL Geologist:
Drill Date: Geologist's Log:
Company: TONY RUST AND SONS Driller:
Drilling Method: BORED Driller's Log: X
Test Hole Number: Total Drill Hole Depth (ft.): 31.0
Samples:

Well Information

SDGS Well Name: Aquifer:
Water Rights Well: Management Unit:
Other Well Name: PRIVATE Casing Top Elev. (ft.):
Casing Type: CONCRETE Casing Diameter (in.):
Screen Type: WOOD Screen Length (ft.):
Total Casing and Screen (ft.): Casing Stick-up (ft.):
Well Maintenance Date:

Geophysical Information

Spontaneous Potential: Single Point Resistivity:
Natural Gamma: Extra:

SCREEN LENGTH IS UNKNOWN. STATIC WATER LEVEL 9 FEET.

Elevation (ft.)	Depth (ft.)	Description
1632.0 - 1629.0	0.0 - 3.0	TOPSOIL, BLACK
1629.0 - 1623.0	3.0 - 9.0	CLAY, YELLOW
1623.0 - 1601.0	9.0 - 31.0	GRAVEL

Bozeid
well

Record 27 of 84

Location Information

Legal Location: SW SW SW SE SEC. 27, T. 110 N., R. 49 W.
County: BROOKINGS Location: 110N-49W-27DCCC

Location Information

Legal Location:	SW SW SW SE SEC. 27, T. 110 N., R. 49 W.		
County:	BROOKINGS	Location:	110N-49W-27DCCC
Basin:	BIG SIOUX	Latitude:	44 17' 47"
Hydrologic Unit Code:	10170203	Longitude:	96 41' 48"
Land Owner:		Ground Surface Elev. (ft.):	1632 T

Project Information

Project:	AURORA CITY STUDY-1988	Geologist:	K. WILKIE/P. DAWSON
Drill Date:		Geologist's Log:	X
Company:	SDGS	Driller:	D. IVERSON
Drilling Method:	HOLLOWSTEM	Driller's Log:	
Test Hole Number:	R20-88-64	Total Drill Hole Depth (ft.):	40.0
Samples:			

Well Information

SDGS Well Name:	R20-88-64	Aquifer:	BIG SIOUX
Water Rights Well:		Management Unit:	AURORA
Other Well Name:		Casing Top Elev. (ft.):	1634.5 T
Casing Type:	PVC	Casing Diameter (in.):	2.0
Screen Type:	PVC, MFG.	Screen Length (ft.):	15.0
Total Casing and Screen (ft.):	38.4	Casing Stick-up (ft.):	2.4
Well Maintenance Date:			

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

10 FEET OF BLANK CASING (OPEN TO SCREEN) FROM 36 TO 26 FEET, SCREEN FROM 26 TO 11 FEET. WATER LEVEL IS 13 FEET BELOW GROUND SURFACE.

Elevation (ft.)	Depth (ft.)	Description
1632.0 - 1631.0	0.0 - 1.0	TOPSOIL, BLACK
1631.0 - 1630.0	1.0 - 2.0	CLAY, YELLOW-BROWN
1630.0 - 1592.0	2.0 - 40.0	GRAVEL, MEDIUM TO VERY COARSE PEBBLE GRAVEL; SATURATED AT 15 FEET

Location Information

Legal Location:	SE SE SE NE SEC. 28, T. 110 N., R. 49 W.
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Test Hole No. 72

Location: NW $\frac{1}{4}$ NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 110 N., R. 49 W.

Surface elevation: 1630 feet

Depth to water: 16 feet

0-	1	Topsoil
1-	6	Sand, fine to coarse
6-	16	Sand and gravel
16-	44	Sand, coarse, gravel
44-	54	Clay, dark-gray, pebbly, compact, (till)

* * * *

Test Hole No. 73

Location: SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 110 N., R. 49 W.

Surface elevation: 1617 feet

Depth to water: 5 feet

0-	5	Clay, brown, silty
5-	9	Sand and gravel
9-	19	Sand, some gravel
19-	53	Sand, coarse, gravel
53-	64	Clay, dark blue-gray, pebbly, (till)

* * * *

Test Hole No. 74

Location: NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 34, T. 110 N., R. 49 W.

Surface elevation: 1635 feet

Depth to water: 17 feet

0-	17	Sand, coarse, gravel
17-	54	Sand, very coarse, gravel
54-	69	Clay, dark blue-gray, pebbly, (till)

* * * *

Test Hole No. 75

Location: SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 35, T. 110 N., R. 49 W.

Surface elevation: 1631 feet

Depth to water: dry

0-	1	Topsoil
1-	13	Sand and gravel
13-	19	Clay, brown, pebbly, compact, (till)

* * * *

Test Hole No. 76

Location: SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 6, T. 109 N., R. 50 W.

Surface elevation: not measured

Depth to water: 5 to 11 feet

Location Information

Legal Location:	NW NW NW NW SEC. 35, T. 110 N., R. 49 W.		
County:	BROOKINGS	Location:	110N-49W-35BBBB
Basin:	BIG SIOUX	Latitude:	44 17' 43"
Hydrologic Unit Code:	10170202	Longitude:	96 41' 12"
Land Owner:		Ground Surface Elev. (ft.):	1633 T

Project Information

Project:	KINGSBURY-BROOKINGS STUDY	Geologist:	G. JOHNSON
Drill Date:		Geologist's Log:	X
Company:	SDGS	Driller:	C. SCHMIG
Drilling Method:	ROTARY	Driller's Log:	
Test Hole Number:	R2-85-61	Total Drill Hole Depth (ft.):	118.0
Samples:			

Well Information

SDGS Well Name:	R2-85-61	Aquifer:	
Water Rights Well:		Management Unit:	
Other Well Name:		Casing Top Elev. (ft.):	1637.0 T
Casing Type:	PVC	Casing Diameter (in.):	2.0
Screen Type:	PVC, MFG.	Screen Length (ft.):	10.0
Total Casing and Screen (ft.):	118.0	Casing Stick-up (ft.):	4.0
Well Maintenance Date:			

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra: X

NO E-LOG.

Elevation (ft.)	Depth (ft.)	Description
1633.0 - 1630.0	0.0 - 3.0	CLAY, LIGHT-BROWN, SILTY (TOPSOIL)
1630.0 - 1585.0	3.0 - 48.0	SAND AND GRAVEL, COARSE SAND TO VERY COARSE PEBBLES
1585.0 - 1529.0	48.0 - 104.0	CLAY, LIGHT-GRAY, SILTY, SANDY, PEBBLY; CALCAREOUS (TILL)
1529.0 - 1518.0	104.0 - 115.0	SAND AND GRAVEL; COARSEST FRACTION NEAR BASE OF UNIT
1518.0 - 1515.0	115.0 - 118.0	CLAY, SAME AS INTERVAL FROM 48 TO 104 FEET

DESCRIPTION BASED ON LOGS FROM DRILLER AND FIELD ASSISTANT (KATHY MARTIN); CUTTINGS EXAMINED 07-15-1985.

Location Information

Legal Location:	NW SW SW NW SEC. 35, T. 110 N., R. 49 W.		
County:	BROOKINGS	Location:	110N-49W-35BCCB
Basin:	BIG SIOUX	Latitude:	44 17' 27"
Hydrologic Unit Code:	10170203	Longitude:	96 41' 13"
Land Owner:		Ground Surface Elev. (ft.):	1629.1 I

Project Information

Project:	AURORA CITY STUDY-1988	Geologist:	P. DAWSON
Drill Date:		Geologist's Log:	X
Company:	SDGS	Driller:	D. JACOBSON
Drilling Method:	ROTARY	Driller's Log:	
Test Hole Number:	CO-88-18	Total Drill Hole Depth (ft.):	57.0
Samples:			

Well Information

SDGS Well Name:	CO-88-18	Aquifer:	BIG SIOUX
Water Rights Well:		Management Unit:	AURORA
Other Well Name:		Casing Top Elev. (ft.):	1631.6 I
Casing Type:	PVC	Casing Diameter (in.):	2.0
Screen Type:	PVC, MFG.	Screen Length (ft.):	10.0
Total Casing and Screen (ft.):	53.4	Casing Stick-up (ft.):	2.4
Well Maintenance Date:			

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

SCREEN FROM 41 TO 51 FEET.

Elevation (ft.)	Depth (ft.)	Description
1629.1 - 1627.1	0.0 - 2.0	TOPSOIL, BLACK
1627.1 - 1579.1	2.0 - 50.0	GRAVEL, MEDIUM PEBBLE GRAVEL FROM 2 TO 30 FEET, COARSE PEBBLE GRAVEL FROM 30 TO 50 FEET; OXIDIZED
1579.1 - 1572.1	50.0 - 57.0	CLAY, GRAY; STICKY (TILL)

Location Information

Legal Location:	NW SW SW NW SEC. 35, T. 110 N., R. 49 W.		
County:	BROOKINGS	Location:	110N-49W-35BCCB 1

Location Information

Legal Location:	NW SW SW NW SEC. 35, T. 110 N., R. 49 W.		
County:	BROOKINGS	Location:	110N-49W-35BCCB 1
Basin:	BIG SIOUX	Latitude:	44 17' 27"
Hydrologic Unit Code:	10170203	Longitude:	96 41' 13"
Land Owner:		Ground Surface Elev. (ft.):	1629.1 I

Project Information

Project:	AURORA CITY STUDY-1988	Geologist:	P. DAWSON
Drill Date:		Geologist's Log:	X
Company:	SDGS	Driller:	D. JACOBSON
Drilling Method:	ROTARY	Driller's Log:	
Test Hole Number:	CO-88-19	Total Drill Hole Depth (ft.):	127.0
Samples:			

Well Information

SDGS Well Name:	CO-88-19	Aquifer:	PLEISTOCENE SERIES
Water Rights Well:		Management Unit:	
Other Well Name:		Casing Top Elev. (ft.):	1631.6 I
Casing Type:	PVC	Casing Diameter (in.):	2.0
Screen Type:	PVC, MFG.	Screen Length (ft.):	5.0
Total Casing and Screen (ft.):	122.5	Casing Stick-up (ft.):	2.5
Well Maintenance Date:			

Geophysical Information

Spontaneous Potential:	Single Point Resistivity:
Natural Gamma:	Extra:

SCREEN FROM 115 TO 120 FEET.

Elevation (ft.)	Depth (ft.)	Description
1629.1 - 1627.1	0.0 - 2.0	TOPSOIL, BLACK
1627.1 - 1579.1	2.0 - 50.0	GRAVEL, MEDIUM TO VERY COARSE PEBBLE GRAVEL; OXIDIZED
1579.1 - 1559.1	50.0 - 70.0	CLAY, GRAY; STICKY (TILL)
1559.1 - 1545.1	70.0 - 84.0	GRAVEL, FINE TO COARSE PEBBLE GRAVEL; OXIDIZED
1545.1 - 1542.1	84.0 - 87.0	CLAY, GRAY; STICKY (TILL)
1542.1 - 1537.1	87.0 - 92.0	GRAVEL STRINGER, FINE TO COARSE PEBBLE GRAVEL; OXIDIZED
1537.1 - 1529.1	92.0 - 100.0	CLAY, GRAY; STICKY (TILL)
1529.1 - 1526.1	100.0 - 103.0	GRAVEL STRINGER, FINE TO COARSE PEBBLE GRAVEL; OXIDIZED
1526.1 - 1517.1	103.0 - 112.0	CLAY, GRAY; STICKY (TILL)
1517.1 - 1508.1	112.0 - 121.0	GRAVEL, MEDIUM TO COARSE PEBBLE GRAVEL; OXIDIZED
1508.1 - 1502.1	121.0 - 127.0	CLAY, GRAY; STICKY (TILL)



GEOTEK ENGINEERING
& TESTING SERVICES, INC.
909 EAST 50TH STREET NORTH
SIOUX FALLS, SOUTH DAKOTA 57104
605-335-3512 FAX 605-335-0773

GEOTECHNICAL TEST BORING LOG

JOB # 01-I07 BORING # 1

PROJECT PROPOSED ETHANOL PLANT, BROOKINGS COUNTY, NEAR AURORA, SOUTH DAKOTA

DEPTH IN FEET	DESCRIPTION OF MATERIAL ✓ SURFACE ELEVATION <u>1626.92'</u>	GEOLOGIC ORIGIN	SAMPLE DATA				LABORATORY TESTS			
			WATER LEVEL	N	NO	TYPE	W	D	LL PL	QU
2	SILTY CLAY, black (CL)	TOPSOIL	-		1	Auger				
	LEAN CLAY, a little gravel, brown, rather stiff (CL)	MIXED ALLUVIUM	-	11	2	SB				
4	SAND, medium and coarse grained, a little gravel, brown, moist to 7.4' then waterbearing, medium dense to dense (SP)	COARSE ALLUVIUM	-	36*	3	SB				
			▽							
			-	12	4	SB				
			-	10	5	SB				
			-	19	6	SB				
21	END OF BORING * N value influence by rock.		-	19	7	SB				
			-							

WATER LEVEL MEASUREMENT					DATE STARTED <u>12-28-01</u>	
DATE	TIME	WATER LEVEL	ELEVATION OF WATER	CAVE-IN DEPTH	DATE FINISHED <u>12-28-01</u> @ <u>10:55</u>	
<u>12-28</u>	<u>11:00</u>	<u>7.4'</u>	<u>1619.52'</u>	<u>7.8'</u>	METHOD OF DRILLING <u>3 1/4" HSA: 0-19.5'</u>	
					CREW CHIEF <u>Hagedorn</u>	



GEOTEK ENGINEERING
& TESTING SERVICES, INC.
909 EAST 50TH STREET NORTH
SIOUX FALLS, SOUTH DAKOTA 57104
605-335-5512 FAX 605-335-0773

GEOTECHNICAL TEST BORING LOG

JOB # 01-I07 BORING # 2

PROJECT PROPOSED ETHANOL PLANT, BROOKINGS COUNTY, NEAR AURORA, SOUTH DAKOTA

DEPTH IN FEET	DESCRIPTION OF MATERIAL SURFACE ELEVATION <u>1627.03'</u>	GEOLOGIC ORIGIN	SAMPLE DATA				LABORATORY TESTS			
			WATER LEVEL	N	NO	TYPE	W	D	LL PL	QU
1.5	SILTY CLAY, black (CL)	TOPSOIL	-		1	Auger				
3	LEAN CLAY, trace of gravel, brown medium (CL)	MIXED ALLUVIUM	-	9	2	SB				
	SAND, medium and coarse grained, a little gravel, brown, moist to 7.6' then waterbearing, dense to medium dense to dense (SP)	COARSE ALLUVIUM	-		3	SB				
			-	23	4	SB				
			-							
			-	12	5	SB				
			-	12	6	SB				
			-							
			-	25	7	SB				
			-							
			-	19	8	SB				
21	END OF BORING									

WATER LEVEL MEASUREMENT					DATE STARTED <u>12-28-01</u>
DATE	TIME	WATER LEVEL	ELEVATION OF WATER	CAVE-IN DEPTH	DATE FINISHED <u>12-28-01</u> @ <u>10:05</u>
<u>12-28</u>	<u>11:10</u>	<u>7.6'</u>	<u>1619.43'</u>	<u>8'</u>	METHOD OF DRILLING <u>3 1/4" HSA: 0-19.5'</u>
					CREW CHIEF <u>Hagedorn</u>



GEOTEK ENGINEERING
& TESTING SERVICES, INC.
909 EAST 50TH STREET NORTH
SIOUX FALLS, SOUTH DAKOTA 57104
605-335-5512 FAX 605-335-0773

GEOTECHNICAL TEST BORING LOG

JOB # 01-I07		BORING # 3								
PROJECT PROPOSED ETHANOL PLANT, BROOKINGS COUNTY, NEAR AURORA, SOUTH DAKOTA										
DEPTH IN FEET	DESCRIPTION OF MATERIAL SURFACE ELEVATION 1626.94'	GEOLOGIC ORIGIN	SAMPLE DATA			LABORATORY TESTS				
			WATER LEVEL	N	NO	TYPE	W	D	LL PL	QU
1.5	SILTY CLAY, black (CL)	TOPSOIL	-		1	Auger				
	SAND, medium and coarse grained, a little gravel, brown, moist to 8' then waterbearing, dense to very dense to dense (SP)	COARSE ALLUVIUM	-	17	2	SB				
			-	36	3	SB				
			-	23	4	SB				
			-	16	5	SB				
			-	29	6	SB				
			-	28	7	SB				
21	END OF BORING									

WATER LEVEL MEASUREMENT					DATE STARTED 12-28-01
DATE	TIME	WATER LEVEL	ELEVATION OF WATER	CAVE-IN DEPTH	DATE FINISHED 12-28-01 @ 12:30
12-28	12:35	8'	1618.94'	8.9'	METHOD OF DRILLING 3 1/4" HSA: 0-19.5'
					CREW CHIEF Hagedorn



GEOTEK ENGINEERING
& TESTING SERVICES, INC.
909 EAST 50TH STREET NORTH
SIOUX FALLS, SOUTH DAKOTA 57104
605-335-5512 FAX 605-335-0773

GEOTECHNICAL TEST BORING LOG

JOB # 01-I07		BORING # 4								
PROJECT PROPOSED ETHANOL PLANT, BROOKINGS COUNTY, NEAR AURORA, SOUTH DAKOTA										
DEPTH IN FEET	DESCRIPTION OF MATERIAL SURFACE ELEVATION 1625.10'	GEOLOGIC ORIGIN	SAMPLE DATA			LABORATORY TESTS				
			WATER LEVEL	N	NO	TYPE	W	D	LL PL	QU
1.5	SILTY CLAY, black (CL)	TOPSOIL	-		1	Auger				
3.5	LEAN CLAY, a little gravel, brown, medium (CL)	MIXED ALLUVIUM	-	6	2	SB				
6.5	SAND, medium grained, a little gravel, brown, moist, dense (SP)	COARSE ALLUVIUM	-	19	3	SB				
	SAND, medium and coarse grained, some gravel, brown, moist to 6.7' then waterbearing, dense to medium dense to dense (SP)		-	21	4	SB				
			-	13	5	SB				
			-	20	6	SB				
			-	27	7	SB				
21	END OF BORING									

WATER LEVEL MEASUREMENT					DATE STARTED 12-28-01	
DATE	TIME	WATER LEVEL	ELEVATION OF WATER	CAVE-IN DEPTH	DATE FINISHED 12-28-01 @ 11:40	
12-28	11:45	6.8'	1618.3'	10.5'	METHOD OF DRILLING 3 1/4" HSA: 0-19.5'	
					CREW CHIEF Hagedorn	



GEOTEK ENGINEERING
& TESTING SERVICES, INC.
909 EAST 60TH STREET NORTH
SIOUX FALLS, SOUTH DAKOTA 57104
605-335-5512 FAX 605-335-0773

GEOTECHNICAL TEST BORING LOG

JOB # <u>01-I07</u>		BORING # <u>5</u>								
PROJECT <u>PROPOSED ETHANOL PLANT, BROOKINGS COUNTY, NEAR AURORA, SOUTH DAKOTA</u>										
DEPTH IN FEET	DESCRIPTION OF MATERIAL — SURFACE ELEVATION <u>1622.11'</u>	GEOLOGIC ORIGIN	SAMPLE DATA			LABORATORY TESTS				
			WATER LEVEL	N	NO	TYPE	W	D	LL PL	QU
2 3.5 9 11	SILTY CLAY, black (CL)	TOPSOIL	-		1	Auger				
	CLAYEY SAND, medium grained, brown, moist, loose (SC)	MIXED ALLUVIUM	-	5	2	SB				
	SAND, medium grained, a little gravel, brown, moist, dense (SP)	COARSE ALLUVIUM	-	29	3	SB				
			-	27	4	SB				
	SAND, medium and coarse grained, a little gravel, brown, water-bearing, medium dense (SP)		-	10	5	SB				
	END OF BORING									
WATER LEVEL MEASUREMENT					DATE STARTED <u>12-28-01</u>					
DATE	TIME	WATER LEVEL	ELEVATION OF WATER	CAVE-IN DEPTH	DATE FINISHED <u>12-28-01</u> @ <u>1:40</u>					
<u>12-28</u>	<u>1:45</u>	<u>9'</u>	<u>1613.11'</u>	<u>9.4'</u>	METHOD OF DRILLING <u>3 1/4" HSA: 0-9.5'</u>					
					CREW CHIEF <u>Hagedorn</u>					

GEOTECHNICAL TEST BORING LOG

[illegible]

**SPECIFICATIONS FOR
VERASUN ENERGY, INC.
WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA**

Prepared For

VERASUN ENERGY CORPORATION

Prepared By

BANNER ASSOCIATES, INC.

CONSULTING ENGINEERS AND ARCHITECTS
BROOKINGS, SOUTH DAKOTA

AUGUST, 2002

#20167.00.03

**SPECIFICATIONS FOR
VERASUN ENERGY, INC.
WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA**

Prepared For

VERASUN ENERGY CORPORATION

02-185
RECEIVED

Prepared By

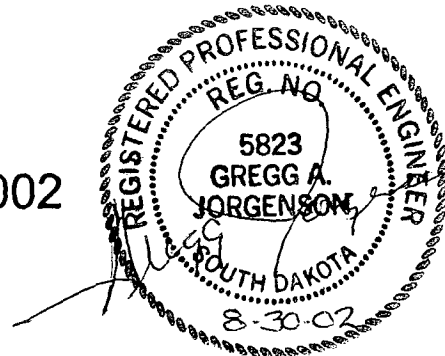
SEP 05 2002

WATER RIGHTS
PROGRAM

BANNER ASSOCIATES, INC.

CONSULTING ENGINEERS AND ARCHITECTS
BROOKINGS, SOUTH DAKOTA

AUGUST, 2002



#20167.00.03

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA

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END OF INDEX

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA

INVITATION TO BID

Notice is hereby given that VeraSun Energy Corporation will receive sealed competitive bids for construction of three (3) new water supply wells for the Brookings County Ethanol Plant.

The Bids must be prepared on bid forms supplied in the Bidding Documents and filed with the VeraSun Energy, 100 22nd Avenue, Suite 103, Brookings, SD 57006 not later than 2:00 P.M. Local Time, September 9, 2002.

The proposed Construction Contract, together with the Plans and Specifications for the construction work, may be seen at the office of VeraSun Energy at the address listed above, or at the office of Banner Associates, Inc., Consulting Engineers, 409 22nd Ave. South, P.O. Box 298, Brookings, S.D. 57006 and may be obtained at the latter.

INSTRUCTIONS TO BIDDERS

1. DEFINED TERMS.

Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions. The term "Bidder" means one who submits a Bid directly to Owner, as distinct from a sub-bidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, qualified, responsible and responsive Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award. The term "Bidding Documents" includes the Instructions to Bidders, the Bid Form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

2. COPIES OF BIDDING DOCUMENTS.

- 2.1 Complete sets of the Bidding Documents may be obtained from Engineer (unless another issuing office is designated in the Advertisement or Invitation to Bid).
- 2.2 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 Owner and Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

3. QUALIFICATIONS OF BIDDERS.

To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within five days of Owner's request written evidence, such as financial data, previous experience and present commitments. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract.

4. EXAMINATION OF CONTRACT DOCUMENTS AND SITE.

- 4.1 It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work, (c) consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work, (d) study and carefully correlate Bidder's observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents.
- 4.2 Reference is made to the Supplementary Conditions for identification of:
 - 4.2.1. Those reports of explorations and tests of subsurface conditions at the site which have been utilized by Engineer in preparation of the Contract Documents.

Bidder may rely upon the accuracy of the technical data contained in such reports but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for the purposes of bidding or construction.

- 4.2.2. Those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which have been utilized by Engineer in preparation of the Contract Documents. Bidder may rely upon the accuracy of the technical data contained in such drawings but not upon the completeness thereof for the purposes of bidding or construction.

Copies of such reports and drawings will be made available by Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the technical data contained therein upon which Bidder is entitled to rely as provided in Paragraphs 4.02 are incorporated therein by reference. Such technical data has been identified and established in the Supplementary Conditions.

- 4.3 Information and data reflected in the Contract Documents with respect to Underground Facilities at or contiguous to the site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities or others, and Owner does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.
- 4.4 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, Underground Facilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in Paragraphs 4.02 and 4.03 of the General Conditions.
- 4.5 Before submitting a Bid, each Bidder will, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 4.6 On request in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.
- 4.7 The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by Contractor in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided

by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by Owner unless otherwise provided in the Contract Documents.

- 4.8 The submission of Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

5. INTERPRETATIONS AND ADDENDA.

- 5.1 All questions about the meaning or intent of the Contract Documents are to be directed to Engineer. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.

6. BID SECURITY. (NOT REQUIRED)

7. CONTRACT TIME.

The number of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set forth in the Bid Form and will be included in the Agreement.

8. LIQUIDATED DAMAGES.

Provisions for liquidated damages, if any, are set forth in the Agreement.

9. SUBSTITUTE OR "OR-EQUAL" ITEMS.

The Contract, if awarded, will be on the basis of materials and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the "effective date of the Agreement". The procedure for submittal for any such application by Contractor and consideration by Engineer is set forth in paragraphs 6.05 of the General Conditions which may be supplemented in the General Requirements.

10. SUBCONTRACTORS, SUPPLIERS AND OTHERS.

- 10.1 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers and other persons and organizations to be submitted to Owner in advance of the specified date prior to the "effective date of the Agreement", the apparent Successful Bidder, and any other Bidder so requested, shall within seven days after the day of the Bid opening, submit to Owner a list of all such Subcontractors, Suppliers and other persons and organizations (including those who are to furnish the principal items of material and equipment) proposed for those portions of the Work for which such identification is so required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, person and organization if requested by Owner. If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, person or organization, either may before the Notice of Award is given, request the apparent Successful Bidder to submit an acceptable substitute without an increase in Bid price. If the apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposed to use acceptable Subcontractors, Suppliers and other persons and organizations.

Declining to make requested substitutions will not constitute grounds for sacrificing the Bid Security of any Bidder. Any Subcontractor, Supplier, other person or organization listed and to whom Owner or Engineer does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to revocation of such acceptance after the "effective date of the Agreement" as provided in Paragraph 6.06.B of the General Conditions.

- 10.2 In contracts where the Contract Price is on the basis of Cost-of-the-Work Plus a Fee, the apparent Successful Bidder, prior to the Notice of Award, shall identify in writing to Owner those portions of the Work that such Bidder proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with Owner's written consent.
- 10.3 No Contractor shall be required to employ any Subcontractor, supplier, other person or organization against whom Contractor has reasonable objection.

11. BID FORM.

- 11.1 The Bid Form is attached hereto; additional copies may be obtained from Engineer.
- 11.2 Bid Forms must be completed in ink or by typewriter.
- 11.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

- 11.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 11.5 All names must be typed or printed below the signature.
- 11.6 The Bid shall contain an acknowledgement of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).
- 11.7 The address and telephone number for communications regarding the Bid must be shown.
- 11.8 The bidder may attach a substitute Bid Schedule printed by a computer in lieu of completing the bound Bid Schedules in ink. All of the provisions of the bound Bid section must be fully complied with except, if a computer printed substitute Bid Schedule is used the unit bid prices need not be written in words. If a substitute Bid Schedule is used it shall be attached to the bound Bid Schedule. Such computer printed substitute Bid Schedule shall include the following at the top of each page:
 - A. Bid Date
 - B. Title of Project
 - C. Bid Schedules
 - D. Name of Owner (VeraSun Energy Corporation)
 - E. Bidder's Name and Address

The substitute computer printed Bid Schedule shall identify the Bid Schedule and have column headings that include the Item Number, Item Description, Quantity, Unit Designation, Unit Bid Price, Amount Bid for each item, Total or Gross Sum Bid below the last bid item and bidder's name, signature in ink and title at the end of the Bid Schedule. The Bidder shall complete Page B-1 including acknowledgement of addendum, and signature page(s). The signature on the substitute computer printed Bid Schedule shall be the same as that on signature page(s) in the bound proposal. The total or gross sum bid shall also be written in ink in the designated space for the Bid Schedule, that is Bid, in the bound proposal. In case of a discrepancy between the line number, bid item description, and/or quantity shown in the bound proposal and those shown on the substitute computer printed bid schedule, the bid item description and the quantity shown in the bound proposal shall govern. The unit bid price shown on the substitute computer printed bid schedule shall govern whether or not the amount bid shown is correct. The substitute bid schedule page size and size of printed characters shall be approximately the same as the bound bid schedule. Solid lines for separating columns and line numbers need not be printed. At least one blank line or space shall separate each line number. Columns may be arranged either vertically or horizontally on the substitute bid schedule. Any irregularities which are not waived by the OWNER as a technicality will result in rejection of the bid.

12. SUBMISSION OF BIDS.

Bids shall be submitted at the time and place indicated and shall be included in an opaque sealed envelope, marked with the Project title (and if applicable, the designated portion of the Project for which the Bid is submitted). If the Bid is sent through the mail or other delivery system the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face thereof.

13. MODIFICATION AND WITHDRAWAL OF BIDS.

- 13.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.
- 13.2 If, within twenty-four hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of his Bid, that Bidder may withdraw his Bid. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

14. OPENING OF BIDS.

Bids will be opened by the OWNER.

15. BIDS TO REMAIN SUBJECT TO ACCEPTANCE.

All Bids shall remain subject to acceptance for thirty days after the day of the Bid opening, but Owner may, in his sole discretion, release any Bid prior to that date.

16. AWARD OF CONTRACT.

- 16.1 Owner reserves the right to reject any and all Bids, to waive any and all informalities not involving price, time or changes in the Work and to negotiate Contract terms with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- 16.2 In evaluating Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

- 16.3 Owner may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the Work as to which the identity of Subcontractors, Suppliers, and other persons and organizations must be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Award.
- 16.4 Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the Work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.
- 16.5 All Bids submitted must be complete. If the Bid is to be awarded, it will be at the discretion of the Owner for the Unit Price Base Bid Package and selected Bid Alternates. A conditional or qualified Bid will not be accepted.
- 16.6 If the contract is to be awarded, Owner will give the Successful Bidder a Notice of Award within thirty days after the day of the Bid opening.

17. CONTRACT SECURITY. (BID ALTERNATES)

Paragraph 5.01 of the General Conditions and the Supplementary Conditions set forth Owner's requirements as to Performance and Payment Bonds, except as modified herein. Bid Alternates have been provided for Performance and Payment Bonds. The Owner will determine, at the time of Award, whether or not to award the Alternates.

18. SIGNING OF AGREEMENT.

When Owner gives a Notice of Award to the Successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached.

19. PRIOR APPROVAL.

Certain items of materials and/or equipment must have prior approval if the BIDDER intends to furnish products other than those specifically named in the Specifications. Items for which prior approval is required are indicated in the General Requirements and the appropriate sections of the Specifications. To obtain approval to use unspecified products, BIDDERS shall submit written requests to the Engineer at least ten (10) days prior to the bid date and hour. Requests received after that time will not be considered. If a change in the bid date and hour occurs, the submittal time for substitution requests will be adjusted accordingly. Requests shall clearly describe the product for which approval is asked, complete with descriptive data indicating all the physical properties and other data required to make a fair comparison between those items specified and those to be substituted. If the product is acceptable, approval by the Engineer will be in the form of an addendum issued to all planholders of record.

END OF INSTRUCTIONS TO BIDDERS

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA

BID

PROJECT IDENTIFICATION: VeraSun Energy, Inc.
Water Supply Wells
Brookings County, South Dakota

THIS BID SUBMITTED TO: VeraSun Energy Corporation

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with OWNER in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.
2. BIDDER accepts all of the terms and conditions of the Advertisement or Invitation to Bid and Instructions to Bidders. This Bid will remain subject to acceptance for thirty days after the day of Bid opening. BIDDER will sign and submit the Agreement with the Bonds (if awarded) and other documents required by the Bidding Requirements within five days after the date of OWNER's Notice of Award.
3. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:
 - (a) BIDDER has examined copies of all the Bidding Documents and of the following Addenda (receipt of all which is hereby acknowledged):

DATE

NUMBER

- (b) BIDDER has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
 - (c) BIDDER has studied carefully all reports and drawings of subsurface conditions and drawings of physical conditions which are identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and accepts the determination set forth in paragraph SC-4.02 of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which BIDDER is entitled to rely.
 - (d) BIDDER has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests and studies (in

addition to or to supplement those referred to in (c) above) which pertain to the subsurface or physical conditions at the site or otherwise may affect the cost, progress, performance or furnishing of the Work as BIDDER considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.02 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports or similar information or data are or will be required by BIDDER for such purposes.

- (e) BIDDER has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports or similar information or data in respect of said Underground Facilities are or will be required by BIDDER in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.04 of the General Conditions.
- (f) BIDDER has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- (g) BIDDER has given ENGINEER written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to BIDDER.
- (h) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over OWNER.
- (i) The prices bid herein include sales tax and all other applicable taxes and fees.

4. METHOD OF AWARD: All Bids submitted must be complete. If the Bid is to be awarded, it will be at the discretion of the Owner for the Unit Price Base Bid Package and selected Bid Alternates. A conditional or qualified Bid will not be accepted.

Bidders are advised that multiple contractors will be on-site performing work during the allowed construction period. Successful Bidders shall coordinate work as closely as possible with the well line construction contractor. Owner reserves the right to direct work as necessary to avoid conflicts among construction schedules.

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
BID

The Owner reserves the right to reduce or delete bid items and/or quantities to stay within budget funding amounts and to reject all Bids.

5. BIDDER will complete the Work for the following price(s):

UNIT PRICE BID SCHEDULE – WATER SUPPLY WELLS

NOTE: - BIDDER shall bid all items of the Unit Price Bid Schedule.
- Quantities as shown are for all three wells.

Item No.	Description of Work and Materials	Quantity and Unit Price (Ink Only)				Total Cost
1.	Mobilization and Demobilization	For the Lump Sum of				\$ _____
2.	Test Holes (3)	210	L.F.	@ \$ _____	L.F.	\$ _____
3.	Drilling Permanent Well Hole	168	L.F.	@ \$ _____	L.F.	\$ _____
4.	14" Well Casing	105	L.F.	@ \$ _____	L.F.	\$ _____
5.	14" Well Screen	42	L.F.	@ \$ _____	L.F.	\$ _____
6.	Selected Silica Gravel Pack	129	L.F.	@ \$ _____	L.F.	\$ _____
7.	Bentonite Seal	3	L.F.	@ \$ _____	L.F.	\$ _____
8.	Concrete Grout Seal	37.5	L.F.	@ \$ _____	L.F.	\$ _____
9.	Development of Well	18	Hrs.	@ \$ _____	Hrs.	\$ _____
10.	Furnish and Install Pitless Adapter Unit	3	Each	@ \$ _____	Each	\$ _____
11.	Furnish and Install Submersible Well Pumps	3	Each	@ \$ _____	Each	\$ _____

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
BID

12.	Furnish and Install 8” Stainless Steel Column Pipe & Couplings	125	L.F.	@ \$ _____	L.F.	\$ _____
13.	Furnish and Install Concrete Pad at Well	3	Each	@ \$ _____	Each	\$ _____
14.	Test Pumping	27	Hrs.	@ \$ _____	Hrs.	\$ _____
15.	Surface Restoration	For the Lump Sum of				\$ _____
16.	Furnish & Install Electrical Panel	3	Each	@ \$ _____	Each	\$ _____

TOTAL FOR UNIT PRICE BID SCHEDULE

\$ _____

CONTRACTOR ANTICIPATES MOBILIZING TO SITE AND STARTING WORK ON _____.

BID ALTERNATES

Bid Alternate No. 1 – Show the amount to be added to the Base Bid for Contract Payment Bond. For the Lump Sum Amount of \$ _____.

Bid Alternate No. 2 – Show the amount to be added to the Base Bid for a Contract Performance Bond. For the Lump Sum Amount of \$ _____.

Quantities are estimated to the best extent possible, and final payment will be based on actual quantities measured.

6. All work as described in these Specifications and Drawings shall be completed and ready for final payment on or before October 15, 2002, unless the period or completion date are extended otherwise by the Contract Documents.

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
BID

Bidders are advised that multiple contractors will be on-site performing work during the allowed construction period. Successful Bidders shall coordinate work as closely as possible with the well line construction contractor. Owner reserves the right to direct work as necessary to avoid conflicts among construction schedules.

7. The following documents are attached to and made a condition of this Bid:

(a) Required Bid Security in the form of _____ (Not Required) _____.

8. Communications concerning this Bid shall be addressed to:

The address of BIDDER indicated below.

9. The terms used in this Bid which are defined in the Standard General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions.

SUBMITTED on _____, 20____.

if BIDDER is:

An Individual

By _____ (SEAL)
(Individual's Name)

doing business as _____

Business address: _____

Phone No.: _____

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 104

A Joint Venture

(Address)

(Address)

8/30/2002

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA

AGREEMENT

THIS AGREEMENT is dated as of the _____ Day of _____, 20____, by and between _____
(hereinafter called OWNER) and _____

(hereinafter called CONTRACTOR).

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE I. WORK.

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

VERASUM ENERGY, INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA

ARTICLE 2. ENGINEER

The Project has been designed by Banner Associates, Inc., 409 22nd Ave. South, Brookings, South Dakota, 57006, Telephone No. (605) 692-6342, who is hereinafter called ENGINEER and who will assume all duties and responsibilities and will have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

ARTICLE 3. CONTRACT TIME

- 3.1. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within 5 calendar days after the date of the NOTICE TO PROCEED.

All work as described in these Specifications and Drawings shall be completed and ready for final payment on or before October 15, 2002, unless the period or completion date are extended otherwise by the Contract Documents.

Bidders are advised that multiple contractors will be on-site performing work during the allowed construction period. Successful Bidders shall coordinate work as closely as possible with the well line construction contractor. Owner reserves the right to direct work as necessary to avoid conflicts among construction schedules.

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
AGREEMENT

ARTICLE 4. CONTRACT PRICE.

- 4.1. OWNER shall pay CONTRACTOR for completion of the Work in accordance with the Contract Documents in current funds as follows:

Completed and accepted work at Unit Prices in accordance with CONTRACTOR'S BID.

Total of Unit Price Bid Schedule and selected Alternates _____

_____ (\$ _____)

ARTICLE 5. PAYMENT PROCEDURES.

Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

- 5.1. Progress Payments: OWNER shall make monthly progress payments on account of the Contract Price on the basis of CONTRACTOR's Applications for Payment as recommended by ENGINEER. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 14.1 of the General Conditions.
- 5.1.1. Prior to Substantial Completion, progress payments will be in an amount equal to: 90% of the Work completed, and 90% of materials and equipment not incorporated in the Work but delivered and suitably stored, less in each case the aggregate of payments previously made.
- 5.1.2. Upon Substantial Completion, OWNER shall pay an amount sufficient to increase total payments to CONTRACTOR to 95% of the Contract Price, less such amounts as ENGINEER shall determine, or OWNER may withhold in accordance with paragraph 14.02.B of the General Conditions.
- 5.2. Final Payment: Upon final completion and acceptance of the Work in accordance with paragraph 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.07.

ARTICLE 6. INTEREST.

All monies not paid when due as provided in Article 14 of the General Conditions shall bear interest at the maximum rate allowed by law at the place of the Project.

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
AGREEMENT

ARTICLE 7. CONTRACTOR'S REPRESENTATIONS.

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

- 7.1. CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 7.2. CONTRACTOR has studied carefully all reports of explorations and tests of subsurface conditions and drawings of physical conditions which are identified in the Supplementary Conditions as provided in paragraph 4.02 of the General Conditions, and accepts the determination set forth in paragraph SC-4.02 of the Supplementary Conditions of the extent of the technical data contained in such reports and drawings upon which CONTRACTOR is entitled to reply.
- 7.3. CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in paragraph 7.2 above) which pertain to the subsurface or physical conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.02 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 7.4. CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.03 of the General Conditions.
- 7.5. CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
AGREEMENT

- 7.6. CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

ARTICLE 8. CONTRACT DOCUMENTS.

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR concerning the Work consist of the following:

- 8.1. This Agreement (Pages A-1 to A-7, inclusive).
- 8.2. Exhibits to this Agreement (pages None to _____, inclusive).
- 8.3. Performance and other Bonds, identified as PyB-1 & 2, PeB-1 & 2, and consisting of 4 pages (if awarded by Owner).
- 8.4. Notice to Proceed consisting of 1 page.
- 8.5. General Conditions (pages 1 to 42, inclusive).
- 8.6. Supplementary Conditions (pages SC-1 to SC-3 inclusive).
- 8.7. Specifications bearing the title VeraSun Energy, Inc. – Water Supply Wells, and dated August, 2002.
- 8.8. Drawings, consisting of two (2) Drawings as attached to these Specifications.
- 8.9. Addenda numbers _____ to _____, inclusive.
- 8.10. CONTRACTOR'S Bid (pages B-1 to _____, inclusive).
- 8.11. Documentation submitted by CONTRACTOR prior to Notice of Award.
- 8.12. The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or supplementing the Contract Documents pursuant to paragraphs 3.04 of the General Conditions.
- 8.13. The documents listed in paragraphs 8.2 et seq. above are attached to this Agreement (except as expressly noted otherwise above).

There are no Contract Documents other than those listed above in this Article 8. The Contract Documents may only be amended, modified or supplemented as provided in paragraphs 3.04 of the General Conditions.

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
AGREEMENT

ARTICLE 9. MISCELLANEOUS.

- 9.1. Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meanings indicated in the General Conditions.
- 9.2. No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 9.3. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements and obligations contained in the Contract Documents.

ARTICLE 10. OTHER PROVISIONS.

(This Article intentionally left blank)

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in triplicate. One counterpart each has been delivered to OWNER, CONTRACTOR and ENGINEER. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or by ENGINEER on their behalf.

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
AGREEMENT

This Agreement will be effective on _____, 20 _____.

OWNER _____ CONTRACTOR _____

By _____ By _____

Name _____ Name _____

(Typed or Printed) (Typed or Printed)
Title _____ Title _____

(CORPORATE SEAL) (CORPORATE SEAL)
Attest _____ Attest _____

Name _____ Name _____
(Typed or Printed) (Typed or Printed)

Title _____ Title _____

Address for giving notices Address for giving notices

License No. _____

Agent for service of process: _____

VERASUN ENERGY INC. – WATER SUPPLY WELLS
BROOKINGS COUNTY, SOUTH DAKOTA
AGREEMENT

INSTRUCTIONS FOR EXECUTING CONTRACT

If the Contractor be a corporation, the following certificate shall be executed:

I, _____, certify that I am the Secretary of the Corporation named as Contractor hereinabove; that _____, who signed the foregoing contract on behalf of the Contractor was then _____ of said Corporation; that said contract was duly signed for and in behalf of said Corporation by authority of its governing body, and is within the scope of its corporate powers.

(CORPORATE SEAL)

(Sign) _____
Secretary

If the Contract be signed by the Secretary of the Corporation, the above certificate shall be executed by some other officers of the corporation, under the corporate seal. In lieu of the foregoing certificate there may be attached to the contract copies of so much of the records of the corporation as will show the official character and authority of the officers signing, duly certified by the Secretary or Assistant Secretary under the corporate seal to be true copies.

Any corporation doing business in the State of South Dakota must first file and receive such authorization from the Secretary of State of South Dakota as required by law, Chapters 47-2 and 47-8 of the South Dakota Compiled Laws of 1967, as amended.

The full name and business address of the contractors shall be inserted and the contract shall be signed with his official signature. Please have the name of the signing party or parties typewritten or printed under all signatures to the contract.

If the Contractor should be operating as a partnership, each partner shall sign the contract. If the contract be not signed by each partner there shall be attached to the contract a duly authenticated power of attorney evidencing the signer's (signers') authority to sign such contract for and in behalf of the partnership.

If the Contractor be an individual, the trade name (if the Contractor be operating under a trade name) shall be indicated in the contract and the contract shall be signed by such individual. If signed by one other than the contractor there shall be attached to the contract a duly authenticated power of attorney evidencing the signer's authority to execute such contract for and in behalf of the contractor.

END OF AGREEMENT

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called Principal,
(Corporation, Partnership or Individual)

and _____
(Name of Surety)

(Address of Surety)
hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)
hereinafter called OWNER, in the penal sum of _____
Dollars, \$(_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTORS or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time alteration or addition to the terms of the contract or to the WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the OWNER and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

And the further condition of this BOND is that in the event said Principal shall fail to pay all just claims and demands on the part of any employee, persons, firms or corporations for labor and materials furnished for or used in connection with the prosecution of the work under said Contract, or pay all taxes which may accrue to the State of South Dakota under the Provisions of the "Use Tax Act of 1939 and The Excise Tax on Realty Improvements under SDCL 10-46A", and Sections 5-21-3 and 5-21-4 of the South Dakota Compiled Laws of 1967, as amended, then this BOND and the sureties thereon shall be responsible to such persons, firms or corporations, and the _____ for the full payment of the full value of such labor and materials so furnished including the payment of South Dakota Use Tax and the Excise Tax on realty improvements.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be deemed an original, this the _____ day of _____, 20_____.

ATTEST:

(Principal) Secretary
(SEAL)

(Witness as to Principal)

(Address)

ATTEST:

(Surety Secretary)

(SEAL)

(Witness as to Surety)

Address

Principal
By _____(s)

Address

Surety

By _____
Attorney-in-Fact

(Address)

Countersigned By: _____
(South Dakota Resident Agent for
Surety)

NOTE: Date of BOND must not be prior to date of Contract.

If CONTRACTOR is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing BONDS must be authorized to transact business in the State where the PROJECT is located.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a _____ hereinafter called Principal,
(Corporation, Partnership or Individual)

and _____
(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto _____

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____
Dollars, \$(_____)

in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the _____ day of _____, 20____, a copy of which is hereto attached and made a part hereof for the construction of:

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall

in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS.

PROVIDED, FURTHER, that no final settlement between the Owner and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts,
(number)
each one of which shall be deemed an original, this the _____ day of
_____, 20_____.

ATTEST:

Principal _____
(Principal Secretary)
(SEAL)

By _____ (s)

Address

(Witness as to Principal)

(Address)

ATTEST:

(Surety Secretary)

(Surety)

(SEAL)

(Witness as to Surety)

By _____
Attorney-in-Fact

(Address)

(Address)

Countersigned By: _____
(South Dakota Resident Agent for
Surety)

NOTE: Date of BOND must not be prior to date of Contract.
If CONTRACTOR is Partnership, all partners should execute bond.

IMPORTANT: Surety companies executing BONDS must be authorized to transact business in the State where the PROJECT is located.

NOTICE TO PROCEED

TO: _____

Date: _____

Project: _____

You are hereby notified to commence WORK in accordance with the Agreement dated _____, 20 ____ on or before _____, 20 ____ and you are to Complete the WORK within _____ consecutive calendar days thereafter. The date of completion of all WORK is therefore _____, 20 ____.

Owner

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED

is hereby acknowledged by _____

this the _____ day of

_____, 20 ____

By _____

Title _____

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the Controlling Law.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and



AMERICAN CONSULTING
ENGINEERS COUNCIL

Issued and Published Jointly By
 **National Society of
Professional Engineers**
Professional Engineers in Private Practice



AMERICAN SOCIETY OF
CIVIL ENGINEERS

PROFESSIONAL ENGINEERS IN PRIVATE PRACTICE
a practice division of the
NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

AMERICAN CONSULTING ENGINEERS COUNCIL

AMERICAN SOCIETY OF CIVIL ENGINEERS

This document has been approved and endorsed by

The Associated General



Contractors of America

Construction Specifications Institute



These General Conditions have been prepared for use with the Owner-Contractor Agreements (No. 1910-8-A-1 or 1910-8-A-2) (1996 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the EJCDC User's Guide (No. 1910-50). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (No. 1910-17) (1996 Edition).

EJCDC No. 1910-8 (1996 Edition)

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American Society of Civil Engineers
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GENERAL CONDITIONS

ARTICLE 1 - DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

A. Wherever used in the Contract Documents and printed with initial or all capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof.

1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the Contract Documents.

2. *Agreement*--The written instrument which is evidence of the agreement between OWNER and CONTRACTOR covering the Work.

3. *Application for Payment*--The form acceptable to ENGINEER which is to be used by CONTRACTOR during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

5. *Bid*--The offer or proposal of a bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

6. *Bidding Documents*--The Bidding Requirements and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

7. *Bidding Requirements*--The Advertisement or Invitation to Bid, Instructions to Bidders, Bid security form, if any, and the Bid form with any supplements.

8. *Bonds*--Performance and payment bonds and other instruments of security.

9. *Change Order*--A document recommended by ENGINEER which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the

Contract Times, issued on or after the Effective Date of the Agreement.

10. *Claim*--A demand or assertion by OWNER or CONTRACTOR seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.

11. *Contract*--The entire and integrated written agreement between the OWNER and CONTRACTOR concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*--The Contract Documents establish the rights and obligations of the parties and include the Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders, and ENGINEER's written interpretations and clarifications issued on or after the Effective Date of the Agreement. Approved Shop Drawings and the reports and drawings of subsurface and physical conditions are not Contract Documents. Only printed or hard copies of the items listed in this paragraph are Contract Documents. Files in electronic media format of text, data, graphics, and the like that may be furnished by OWNER to CONTRACTOR are not Contract Documents.

13. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.03 in the case of Unit Price Work).

14. *Contract Times*--The number of days or the dates stated in the Agreement to: (i) achieve Substantial Completion; and (ii) complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment.

15. *CONTRACTOR*--The individual or entity with whom OWNER has entered into the Agreement.

16. *Cost of the Work*--See paragraph 11.01.A for definition.

17. *Drawings*--That part of the Contract Documents prepared or approved by ENGINEER which graphically shows the scope, extent, and character of the Work to be performed by CONTRACTOR. Shop Drawings and other CONTRACTOR submittals are not Drawings as so defined.

18. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

19. *ENGINEER*--The individual or entity named as such in the Agreement.

20. *ENGINEER's Consultant*--An individual or entity having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

21. *Field Order*--A written order issued by ENGINEER which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.

22. *General Requirements*--Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.

23. *Hazardous Environmental Condition*--The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.

24. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

25. *Laws and Regulations; Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.

26. *Liens*--Charges, security interests, or encumbrances upon Project funds, real property, or personal property.

27. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

28. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon timely compliance by the apparent successful bidder with the conditions precedent listed therein, OWNER will sign and deliver the Agreement.

29. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform the Work under the Contract Documents.

30. *OWNER*--The individual, entity, public body, or authority with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be performed.

31. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

32. *PCBs*--Polychlorinated biphenyls.

33. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.

34. *Project*--The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part as may be indicated elsewhere in the Contract Documents.

35. *Project Manual*--The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.

36. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

37. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the Site or any part thereof.

38. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

39. *Shop Drawings*--All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

40. *Site*--Lands or areas indicated in the Contract Documents as being furnished by OWNER upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by OWNER which are designated for the use of CONTRACTOR.

41. *Specifications*--That part of the Contract Documents consisting of written technical descriptions of materials, equipment, systems, standards, and workmanship as applied to the Work and certain administrative details applicable thereto.

42. *Subcontractor*--An individual or entity having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

43. *Substantial Completion*--The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

44. *Supplementary Conditions*--That part of the Contract Documents which amends or supplements these General Conditions.

45. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

46. *Underground Facilities*--All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases,

steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater storm water, other liquids or chemicals, or traffic or other control systems.

47. *Unit Price Work*--Work to be paid for on the basis of unit prices.

48. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

49. *Work Change Directive*--A written statement to CONTRACTOR issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

50. *Written Amendment*--A written statement modifying the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

1.02 Terminology

A. Intent of Certain Terms or Adjectives

1. Whenever in the Contract Documents the terms "as allowed," "as approved," or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper," "satisfactory," or adjectives of like effect or import are used to describe an action or determination of ENGINEER as to the Work, it is intended that such action or determination will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The

use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.10 or any other provision of the Contract Documents.

B. Day

1. The word "day" shall constitute a calendar day of 24 hours measured from midnight to the next midnight.

C. Defective

1. The word "defective," when modifying the word "Work," refers to Work that is unsatisfactory, faulty, or deficient in that it does not conform to the Contract Documents or does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.04 or 14.05).

D. Furnish, Install, Perform, Provide

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.

2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.

3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.

4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of CONTRACTOR, "provide" is implied.

E. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 - PRELIMINARY MATTERS

2.01 Delivery of Bonds

A. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish.

2.02 Copies of Documents

A. OWNER shall furnish to CONTRACTOR up to ten copies of the Contract Documents. Additional copies will be furnished upon request at the cost of reproduction.

2.03 Commencement of Contract Times; Notice to Proceed

A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 Starting the Work

A. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 Before Starting Construction

A. *CONTRACTOR's Review of Contract Documents:* Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity, or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless CONTRACTOR knew or reasonably should have known thereof.

B. *Preliminary Schedules:* Within ten days after the Effective Date of the Agreement (unless otherwise specified

in the General Requirements), CONTRACTOR shall submit to ENGINEER for its timely review:

1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2. a preliminary schedule of Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing, and processing such submittal; and

3. a preliminary schedule of values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

C. *Evidence of Insurance:* Before any Work at the Site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with Article 5.

2.06 *Preconstruction Conference*

A. Within 20 days after the Contract Times start to run, but before any Work at the Site is started, a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.05.B, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.

2.07 *Initial Acceptance of Schedules*

A. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER, and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.05.B. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until acceptable schedules are submitted to ENGINEER.

1. The progress schedule will be acceptable to ENGINEER if it provides an orderly progression of the Work to completion within any specified Milestones and the Contract Times. Such acceptance will not impose on ENGINEER responsibility for the progress schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefor.

2. CONTRACTOR's schedule of Shop Drawing and Sample submittals will be acceptable to ENGINEER if it provides a workable arrangement for reviewing and processing the required submittals.

3. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 - CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

A. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.

B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to OWNER.

C. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in Article 9.

3.02 *Reference Standards*

A. *Standards, Specifications, Codes, Laws, and Regulations*

1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids),

except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of OWNER, CONTRACTOR, or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall any such provision or instruction be effective to assign to OWNER, ENGINEER, or any of ENGINEER's Consultants, agents, or employees any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies*

1. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, CONTRACTOR shall report it to ENGINEER in writing at once. CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as required by paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.04; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity, or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

B. *Resolving Discrepancies*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:

a. the provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways: (i) a Written Amendment; (ii) a Change Order; or (iii) a Work Change Directive.

B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways: (i) a Field Order; (ii) ENGINEER's approval of a Shop Drawing or Sample; or (iii) ENGINEER's written interpretation or clarification.

3.05 *Reuse of Documents*

A. CONTRACTOR and any Subcontractor or Supplier or other individual or entity performing or furnishing any of the Work under a direct or indirect contract with OWNER: (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, including electronic media editions; and (ii) shall not reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER. This prohibition will survive final payment, completion, and acceptance of the Work, or termination or completion of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 - AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

A. OWNER shall furnish the Site. OWNER shall notify CONTRACTOR of any encumbrances or restrictions not of general application but specifically related to use of the Site with which CONTRACTOR must comply in performing the Work. OWNER will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If CONTRACTOR and OWNER are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in OWNER's furnishing the Site, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

B. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.

C. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 Subsurface and Physical Conditions

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports of explorations and tests of subsurface conditions at or contiguous to the Site that ENGINEER has used in preparing the Contract Documents; and

2. those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that ENGINEER has used in preparing the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER, or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 Differing Subsurface or Physical Conditions

A. *Notice:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraph 4.02 is materially inaccurate; or

2. is of such a nature as to require a change in the Contract Documents; or

3. differs materially from that shown or indicated in the Contract Documents; or

4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *ENGINEER's Review:* After receipt of written notice as required by paragraph 4.03.A, ENGINEER will promptly review the pertinent condition, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto, and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

C. Possible Price and Times Adjustments

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in CONTRACTOR's cost of, or time required for, performance of the Work; subject, however, to the following:

- a. such condition must meet any one or more of the categories described in paragraph 4.03.A; and

- b. with respect to Work that is paid for on Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.08 and 11.03.

2. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Contract Times if:

a. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or

b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or

c. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.03.A.

3. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in paragraph 10.05. However, OWNER, ENGINEER, and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by CONTRACTOR on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities, including OWNER, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

2. the cost of all of the following will be included in the Contract Price, and CONTRACTOR shall have full responsibility for:

a. reviewing and checking all such information and data,

b. locating all Underground Facilities shown or indicated in the Contract Documents,

c. coordination of the Work with the owners of such Underground Facilities, including OWNER, during construction, and

d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility.

2. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, OWNER or CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

4.05 *Reference Points*

A. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and property

monuments, and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 Hazardous Environmental Condition at Site

A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the ENGINEER in the preparation of the Contract Documents.

B. *Limited Reliance by CONTRACTOR on Technical Data Authorized:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any Claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto; or

2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or

3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

C. CONTRACTOR shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. CONTRACTOR shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by CONTRACTOR, Subcontractors, Suppliers, or anyone else for whom CONTRACTOR is responsible.

D. If CONTRACTOR encounters a Hazardous Environmental Condition or if CONTRACTOR or anyone for whom CONTRACTOR is responsible creates a Hazardous

Environmental Condition, CONTRACTOR shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by paragraph 6.16); and (iii) notify OWNER and ENGINEER (and promptly thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such condition or take corrective action, if any.

E. CONTRACTOR shall not be required to resume Work in connection with such condition or in any affected area until after OWNER has obtained any required permit related thereto and delivered to CONTRACTOR written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by CONTRACTOR, either party may make a Claim therefor as provided in paragraph 10.05.

F. If after receipt of such written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in paragraph 10.05. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

G. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing

in this paragraph 4.06.E shall obligate OWNER to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

H. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, other consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by CONTRACTOR or by anyone for whom CONTRACTOR is responsible. Nothing in this paragraph 4.06.F shall obligate CONTRACTOR to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

I. The provisions of paragraphs 4.02, 4.03, and 4.04 are not intended to apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 - BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

A. CONTRACTOR shall furnish performance and payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Contract Documents.

B. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

C. If the surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements

of paragraph 5.01.B, CONTRACTOR shall within 20 days thereafter substitute another Bond and surety, both of which shall comply with the requirements of paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

A. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

A. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is required to purchase and maintain.

5.04 *CONTRACTOR's Liability Insurance*

A. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:

1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;

2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

4. claims for damages insured by reasonably available personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and

6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

B. The policies of insurance so required by this paragraph 5.04 to be purchased and maintained shall:

1. with respect to insurance required by paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insureds (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;

2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

3. include completed operations insurance;

4. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.07, 6.11, and 6.20;

5. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.03 will so provide);

6. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be

correcting, removing, or replacing defective Work in accordance with paragraph 13.07; and

7. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

5.05 OWNER's Liability Insurance

A. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.04, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

5.06 Property Insurance

A. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an additional insured;

2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER;

5. allow for partial utilization of the Work by OWNER;

6. include testing and startup; and

7. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR, and ENGINEER with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

B. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and any other individuals or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.07.

D. OWNER shall not be responsible for purchasing and maintaining any property insurance specified in this paragraph 5.06 to protect the interests of CONTRACTOR, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by CONTRACTOR, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

E. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraph 5.06, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work

at the Site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

5.07 Waiver of Rights

A. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraph 5.06 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

B. OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them for:

1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of, or resulting from fire or other peril whether or not insured by OWNER; and

2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.05, after Substantial Completion

pursuant to paragraph 14.04, or after final payment pursuant to paragraph 14.07.

C. Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against CONTRACTOR, Subcontractors, ENGINEER, or ENGINEER's Consultants and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

A. Any insured loss under the policies of insurance required by paragraph 5.06 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.08.B. OWNER shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

B. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

A. If either OWNER or CONTRACTOR has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by paragraph 2.05.C. OWNER and CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required

of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

A. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

A. CONTRACTOR shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of OWNER or ENGINEER in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

B. At all times during the progress of the Work, CONTRACTOR shall assign a competent resident superintendent thereto who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the Site and shall have authority to act on behalf of CONTRACTOR. All communications given to or received from the superintendent shall be binding on CONTRACTOR.

6.02 Labor; Working Hours

A. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out, and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the Site.

B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday, or any legal holiday without OWNER's written consent (which will not be unreasonably withheld) given after prior written notice to ENGINEER.

6.03 Services, Materials, and Equipment

A. Unless otherwise specified in the General Requirements, CONTRACTOR shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.

B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 Progress Schedule

A. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.07 as it may be adjusted from time to time as provided below.

1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.07) proposed adjustments in the progress schedule that will not result in changing the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with

any provisions of the General Requirements applicable thereto.

2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of Article 12. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

6.05 Substitutes and "Or-Equals"

A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to ENGINEER for review under the circumstances described below.

1. "Or-Equal" Items: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:

a. in the exercise of reasonable judgment ENGINEER determines that: (i) it is at least equal in quality, durability, appearance, strength, and design characteristics; (ii) it will reliably perform at least equally well the function imposed by the design concept of the completed Project as a functioning whole, and;

b. CONTRACTOR certifies that: (i) there is no increase in cost to the OWNER; and (ii) it will conform substantially, even with deviations, to the detailed requirements of the item named in the Contract Documents.

2. Substitute Items

a. If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under

paragraph 6.05.A.1, it will be considered a proposed substitute item.

b. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR.

c. The procedure for review by ENGINEER will be as set forth in paragraph 6.05.A.2.d, as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances.

d. CONTRACTOR shall first make written application to ENGINEER for review of a proposed substitute item of material or equipment that CONTRACTOR seeks to furnish or use. The application shall certify that the proposed substitute item will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified. The application will state the extent, if any, to which the use of the proposed substitute item will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute item and whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute item from that specified will be identified in the application, and available engineering, sales, maintenance, repair, and replacement services will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute item. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute item.

B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is shown or indicated in and expressly

required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.05.A.2.

C. *Engineer's Evaluation:* ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.05.A and 6.05.B. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized until ENGINEER's review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an "or equal." ENGINEER will advise CONTRACTOR in writing of any negative determination.

D. *Special Guarantee:* OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.

E. *ENGINEER's Cost Reimbursement:* ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in evaluating substitute proposed or submitted by CONTRACTOR pursuant to paragraphs 6.05.A.2 and 6.05.B and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER approves a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute.

F. *CONTRACTOR's Expense:* CONTRACTOR shall provide all data in support of any proposed substitute or "or-equal" at CONTRACTOR's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

A. CONTRACTOR shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to OWNER as indicated in paragraph 6.06.B), whether initially or as a replacement, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or

entities to be submitted to OWNER in advance for acceptance by OWNER by a specified date prior to the Effective Date of the Agreement, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. CONTRACTOR shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of OWNER or ENGINEER to reject defective Work.

C. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between OWNER or ENGINEER and any such Subcontractor, Supplier or other individual or entity, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

D. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR.

E. CONTRACTOR shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with ENGINEER through CONTRACTOR.

F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

G. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor

or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.06, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds (and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

6.07 *Patent Fees and Royalties*

A. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees or agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

A. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits

and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto, such as plant investment fees.

6.09 Laws and Regulations

A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.

B. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR of CONTRACTOR's obligations under paragraph 3.03.

C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work may be the subject of an adjustment in Contract Price or Contract Times. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in paragraph 10.05.

6.10 Taxes

A. CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by CONTRACTOR in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 Use of Site and Other Areas

A. Limitation on Use of Site and Other Areas

1. CONTRACTOR shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not

unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.

3. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant, and the officers, directors, partners, employees, agents, and other consultants of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER, or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

B. *Removal of Debris During Performance of the Work:* During the progress of the Work CONTRACTOR shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work CONTRACTOR shall clean the Site and make it ready for utilization by OWNER. At the completion of the Work CONTRACTOR shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 Record Documents

A. CONTRACTOR shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work

Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to ENGINEER for OWNER.

6.13 *Safety and Protection*

A. CONTRACTOR shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.

B. CONTRACTOR shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property. All damage, injury, or loss to any property referred to in paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them). CONTRACTOR's duties and

responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

A. CONTRACTOR shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

A. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, CONTRACTOR is obligated to act to prevent threatened damage, injury, or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

A. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample submittals. All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show ENGINEER the services, materials, and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.17.E.

B. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with the acceptable schedule of Shop Drawings and Sample

submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers, and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.17.E. The numbers of each Sample to be submitted will be as specified in the Specifications.

C. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER as required by paragraph 2.07, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

D. Submittal Procedures

1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

a. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;

b. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;

c. all information relative to means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto; and

d. CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

2. Each submittal shall bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

3. At the time of each submittal, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawing or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop

Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

E. ENGINEER's Review

1. ENGINEER will timely review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals acceptable to ENGINEER. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.

2. ENGINEER's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.

3. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of each submittal as required by paragraph 6.17.D.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.17.D.1.

F. Resubmittal Procedures

1. CONTRACTOR shall make corrections required by ENGINEER and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.18 Continuing the Work

A. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except

as permitted by paragraph 15.04 or as OWNER and CONTRACTOR may otherwise agree in writing.

6.19 *CONTRACTOR's General Warranty and Guarantee*

A. CONTRACTOR warrants and guarantees to OWNER, ENGINEER, and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:

1. abuse, modification, or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors, Suppliers, or any other individual or entity for whom CONTRACTOR is responsible; or

2. normal wear and tear under normal usage.

B. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

1. observations by ENGINEER;
2. recommendation by ENGINEER or payment by OWNER of any progress or final payment;
3. the issuance of a certificate of Substantial Completion by ENGINEER or any payment related thereto by OWNER;
4. use or occupancy of the Work or any part thereof by OWNER;
5. any acceptance by OWNER or any failure to do so;
6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER;
7. any inspection, test, or approval by others; or
8. any correction of defective Work by OWNER.

6.20 *Indemnification*

A. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants, and the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them from

and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage:

1. is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom; and

2. is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of an individual or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such individual or entity.

B. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.

C. The indemnification obligations of CONTRACTOR under paragraph 6.20.A shall not extend to the liability of ENGINEER and ENGINEER's Consultants or to the officers, directors, partners, employees, agents, and other consultants and subcontractors of each and any of them arising out of:

1. the preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

ARTICLE 7 - OTHER WORK

7.01 *Related Work at Site*

A. OWNER may perform other work related to the Project at the Site by OWNER's employees, or let other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:

1. written notice thereof will be given to CONTRACTOR prior to starting any such other work; and

2. if OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in paragraph 10.05.

B. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the other work with OWNER's employees) proper and safe access to the Site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

C. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure to so report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

A. If OWNER intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:

1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;

2. the specific matters to be covered by such authority and responsibility will be itemized; and

3. the extent of such authority and responsibilities will be provided.

B. Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility for such coordination.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

A. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.02 *Replacement of ENGINEER*

A. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer to whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.03 *Furnish Data*

A. OWNER shall promptly furnish the data required of OWNER under the Contract Documents.

8.04 *Pay Promptly When Due*

A. OWNER shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.01 and 4.05. Paragraph 4.02 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations

and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by ENGINEER in preparing the Contract Documents.

8.06 *Insurance*

A. OWNER's responsibilities, if any, in respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. OWNER is obligated to execute Change Orders as indicated in paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. OWNER's responsibility in respect to certain inspections, tests, and approvals is set forth in paragraph 13.03.B.

8.09 *Limitations on OWNER's Responsibilities*

A. The OWNER shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. OWNER's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *OWNER'S Representative*

A. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and will not be changed without written consent of OWNER and ENGINEER.

9.02 *Visits to Site*

A. ENGINEER will make visits to the Site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER, for the benefit of OWNER, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work.

B. ENGINEER's visits and observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.10, and particularly, but without limitation, during or as a result of ENGINEER's visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

A. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more extensive observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.10 and in the Supplementary Conditions. If OWNER designates another

representative or agent to represent OWNER at the Site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 Clarifications and Interpretations

A. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from the Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a written clarification or interpretation, a Claim may be made therefor as provided in paragraph 10.05.

9.05 Authorized Variations in Work

A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR, who shall perform the Work involved promptly. If OWNER and CONTRACTOR are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of a Field Order, a Claim may be made therefor as provided in paragraph 10.05.

9.06 Rejecting Defective Work

A. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be defective, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.07 Shop Drawings, Change Orders and Payments

A. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraph 6.17.

B. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

C. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

9.08 Determinations for Unit Price Work

A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding (except as modified by ENGINEER to reflect changed factual conditions or more accurate data) upon OWNER and CONTRACTOR, subject to the provisions of paragraph 10.05.

9.09 Decisions on Requirements of Contract Documents and Acceptability of Work

A. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work, the quantities and classifications of Unit Price Work, the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, and Claims seeking changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing, in accordance with the provisions of paragraph 10.05, with a request for a formal decision.

B. When functioning as interpreter and judge under this paragraph 9.09, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to this paragraph 9.09 with respect to any such Claim, dispute, or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.07) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such Claim, dispute, or other matter.

9.10 Limitations on ENGINEER's Authority and Responsibilities

A. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority

or responsibility or the undertaking, exercise, or performance of any authority or responsibility by ENGINEER shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.

B. ENGINEER will not supervise, direct, control, or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

D. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.

E. The limitations upon authority and responsibility set forth in this paragraph 9.10 shall also apply to ENGINEER's Consultants, Resident Project Representative, and assistants.

ARTICLE 10 - CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

A. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

B. If OWNER and CONTRACTOR are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change

Directive, a Claim may be made therefor as provided in paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in paragraph 3.04, except in the case of an emergency as provided in paragraph 6.16 or in the case of uncovering Work as provided in paragraph 13.04.B.

10.03 *Execution of Change Orders*

A. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

1. changes in the Work which are: (i) ordered by OWNER pursuant to paragraph 10.01.A, (ii) required because of acceptance of defective Work under paragraph 13.08.A or OWNER's correction of defective Work under paragraph 13.09, or (iii) agreed to by the parties;

2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and

3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.18.A.

10.04 *Notification to Surety*

A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable Bond will be adjusted to reflect the effect of any such change.

10.05 *Claims and Disputes*

A. *Notice:* Written notice stating the general nature of each Claim, dispute, or other matter shall be delivered by the claimant to ENGINEER and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. Notice of the amount or extent of the Claim, dispute, or other matter with supporting data shall be delivered to the ENGINEER and the other party to the Contract within 60 days after the start of such event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of such Claim, dispute, or other matter). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of paragraph 12.01.B. A Claim for an adjustment in Contract Time shall be prepared in accordance with the provisions of paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to ENGINEER and the claimant within 30 days after receipt of the claimant's last submittal (unless ENGINEER allows additional time).

B. *ENGINEER's Decision:* ENGINEER will render a formal decision in writing within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any. ENGINEER's written decision on such Claim, dispute, or other matter will be final and binding upon OWNER and CONTRACTOR unless:

1. an appeal from ENGINEER's decision is taken within the time limits and in accordance with the dispute resolution procedures set forth in Article 16; or

2. if no such dispute resolution procedures have been set forth in Article 16, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within 30 days after the date of such decision, and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction within 60 days after the date of such decision or within 60 days after Substantial Completion, whichever is later (unless otherwise agreed in writing by OWNER and CONTRACTOR), to exercise such rights or remedies as the appealing party may have with respect to such Claim, dispute, or other matter in accordance with applicable Laws and Regulations.

C. If ENGINEER does not render a formal decision in writing within the time stated in paragraph 10.05.B, a decision denying the Claim in its entirety shall be deemed to have been issued 31 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any.

D. No Claim for an adjustment in Contract Price or Contract Times (or Milestones) will be valid if not submitted in accordance with this paragraph 10.05.

ARTICLE 11 - COST OF THE WORK; CASH ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

A. *Costs Included:* The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to CONTRACTOR will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by OWNER.

2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

3. Payments made by CONTRACTOR to Subcontractors for Work performed by Subcontractors. If required by OWNER, CONTRACTOR shall obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER, who will then determine, with the advice of ENGINEER, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in this paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.

5. Supplemental costs including the following:

a. The proportion of necessary transportation, travel, and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of CONTRACTOR.

c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.

d. Sales, consumer, use, and other similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

e. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable,

and royalty payments and fees for permits and licenses.

f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee.

g. The cost of utilities, fuel, and sanitary facilities at the Site.

h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressage, and similar petty cash items in connection with the Work.

i. When the Cost of the Work is used to determine the value of a Change Order or of a Claim, the cost of premiums for additional Bonds and insurance required because of the changes in the Work or caused by the event giving rise to the Claim.

j. When all the Work is performed on the basis of cost-plus, the costs of premiums for all Bonds and insurance CONTRACTOR is required by the Contract Documents to purchase and maintain.

B. Costs Excluded: The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnerships and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by CONTRACTOR, whether at the Site or in CONTRACTOR's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.01.A.1 or specifically covered by paragraph 11.01.A.4, all of which are to be

considered administrative costs covered by the CONTRACTOR's fee.

2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the Site.

3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

4. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.

5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraphs 11.01.A and 11.01.B.

C. CONTRACTOR's Fee: When all the Work is performed on the basis of cost-plus, CONTRACTOR's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, CONTRACTOR's fee shall be determined as set forth in paragraph 12.01.C.

D. Documentation: Whenever the Cost of the Work for any purpose is to be determined pursuant to paragraphs 11.01.A and 11.01.B, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.02 Cash Allowances

A. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

2. CONTRACTOR's costs for unloading and handling on the Site, labor, installation costs, overhead, profit, and other expenses contemplated for the allow-

ances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

B. Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 Unit Price Work

A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER subject to the provisions of paragraph 9.08.

B. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

C. OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with paragraph 10.05 if:

1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

2. there is no corresponding adjustment with respect any other item of Work; and

3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 - CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

A. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.03); or

2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 12.01.C.2); or

3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in paragraph 11.01) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 12.01.C).

C. **CONTRACTOR's Fee:** The CONTRACTOR's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or

2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:

a. for costs incurred under paragraphs 11.01.A.1 and 11.01.A.2, the CONTRACTOR's fee shall be 15 percent;

b. for costs incurred under paragraph 11.01.A.3, the CONTRACTOR's fee shall be five percent;

c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no

fixed fee is agreed upon, the intent of paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;

d. no fee shall be payable on the basis of costs itemized under paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;

e. the amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in CONTRACTOR's fee by an amount equal to five percent of such net decrease; and

f. when both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

A. The Contract Times (or Milestones) may only be changed by a Change Order or by a Written Amendment. Any Claim for an adjustment in the Contract Times (or Milestones) shall be based on written notice submitted by the party making the claim to the ENGINEER and the other party to the Contract in accordance with the provisions of paragraph 10.05.

B. Any adjustment of the Contract Times (or Milestones) covered by a Change Order or of any Claim for an adjustment in the Contract Times (or Milestones) will be determined in accordance with the provisions of this Article 12.

12.03 *Delays Beyond CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in paragraph 12.02.A. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by

Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.

12.04 *Delays Within CONTRACTOR's Control*

A. The Contract Times (or Milestones) will not be extended due to delays within the control of CONTRACTOR. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.05 *Delays Beyond OWNER's and CONTRACTOR's Control*

A. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay.

12.06 *Delay Damages*

A. In no event shall OWNER or ENGINEER be liable to CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from:

1. delays caused by or within the control of CONTRACTOR; or

2. delays beyond the control of both OWNER and CONTRACTOR including but not limited to fires, floods, epidemics, abnormal weather conditions, acts of God, or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

B. Nothing in this paragraph 12.06 bars a change in Contract Price pursuant to this Article 12 to compensate CONTRACTOR due to delay, interference, or disruption directly attributable to actions or inactions of OWNER or anyone for whom OWNER is responsible.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

A. Prompt notice of all defective Work of which OWNER or ENGINEER has actual knowledge will be given

to CONTRACTOR. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

A. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspecting, and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

A. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

B. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

1. for inspections, tests, or approvals covered by paragraphs 13.03.C and 13.03.D below;

2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.04.B shall be paid as provided in said paragraph 13.04.B; and

3. as otherwise specifically provided in the Contract Documents.

C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection or approval.

D. CONTRACTOR shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to OWNER and ENGINEER.

E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.

F. Uncovering Work as provided in paragraph 13.03.E shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

A. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

B. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment. If it is found that such Work is defective, CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a Claim therefor as provided in paragraph 10.05.

13.05 *OWNER May Stop the Work*

A. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop

the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

A. CONTRACTOR shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by ENGINEER, remove it from the Project and replace it with Work that is not defective. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

13.07 *Correction Period*

A. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for CONTRACTOR's use by OWNER or permitted by Laws and Regulations as contemplated in paragraph 6.11.A is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions: (i) repair such defective land or areas, or (ii) correct such defective Work or, if the defective Work has been rejected by OWNER, remove it from the Project and replace it with Work that is not defective, and (iii) satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or repaired or may have the rejected Work removed and replaced, and all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

B. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that

item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

C. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

D. CONTRACTOR's obligations under this paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

A. If, instead of requiring correction or removal and replacement of defective Work, OWNER (and, prior to ENGINEER's recommendation of final payment, ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to OWNER's evaluation of and determination to accept such defective Work (such costs to be approved by ENGINEER as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by CONTRACTOR pursuant to this sentence. If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and OWNER shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, OWNER may make a Claim therefor as provided in paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

13.09 *OWNER May Correct Defective Work*

A. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.06.A, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days written notice to CONTRACTOR, correct and remedy any such deficiency.

B. In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. In

connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors, and ENGINEER and ENGINEER's Consultants access to the Site to enable OWNER to exercise the rights and remedies under this paragraph.

C. All Claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by OWNER in exercising the rights and remedies under this paragraph 13.09 will be charged against CONTRACTOR, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, OWNER may make a Claim therefor as provided in paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

D. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies under this paragraph 13.09.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

A. The schedule of values established as provided in paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 Progress Payments

A. Applications for Payments

1. At least 20 days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect OWNER's interest therein, all of which must be satisfactory to OWNER.

2. Beginning with the second Application for Payment, each Application shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied on account to discharge CONTRACTOR's legitimate obligations associated with prior Applications for Payment.

3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. Review of Applications

1. ENGINEER will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to OWNER or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application.

2. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's observations on the Site of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

a. the Work has progressed to the point indicated;

b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.08, and to any other qualifications stated in the recommendation); and

c. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

3. By recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents; or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

4. Neither ENGINEER's review of CONTRACTOR's Work for the purposes of recommending payments nor ENGINEER's recommendation of any payment, including final payment, will impose responsibility on ENGINEER to supervise, direct, or control the Work or for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for CONTRACTOR's failure to comply with Laws and Regulations applicable to CONTRACTOR's performance of the Work. Additionally, said review or recommendation will not impose responsibility on ENGINEER to make any examination to ascertain how or for what purposes CONTRACTOR has used the moneys paid on account of the Contract Price, or to determine that title to any of the Work, materials, or equipment has passed to OWNER free and clear of any Liens.

5. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.02.B.2. ENGINEER may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests,

revise or revoke any such payment recommendation previously made, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Written Amendment or Change Orders;
- c. OWNER has been required to correct defective Work or complete Work in accordance with paragraph 13.09; or
- d. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraph 15.02.A.

C. *Payment Becomes Due*

1. Ten days after presentation of the Application for Payment to OWNER with ENGINEER's recommendation, the amount recommended will (subject to the provisions of paragraph 14.02.D) become due, and when due will be paid by OWNER to CONTRACTOR.

D. *Reduction in Payment*

1. OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

- a. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work;
- b. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens;
- c. there are other items entitling OWNER to a set-off against the amount recommended; or
- d. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.02.B.5.a through 14.02.B.5.c or paragraph 15.02.A.

2. If OWNER refuses to make payment of the full amount recommended by ENGINEER, OWNER must give CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR any amount remaining after deduction of the amount so withheld.

OWNER shall promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

3. If it is subsequently determined that OWNER's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by paragraph 14.02.C.1.

14.03 *CONTRACTOR's Warranty of Title*

A. CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

A. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Promptly thereafter, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within 14 days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefor. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said 14 days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibility.

ties pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

B. OWNER shall have the right to exclude CONTRACTOR from the Site after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

A. Use by OWNER at OWNER's option of any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which OWNER, ENGINEER, and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following conditions.

1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR, and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

2. No occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

A. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will promptly make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment*

1. After CONTRACTOR has, in the opinion of ENGINEER, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance certificates of inspection, marked-up record documents (as provided in paragraph 6.12), and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.04.B.7; (ii) consent of the surety, if any, to final payment; and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Lien rights arising out of or Liens filed in connection with the Work.

3. In lieu of the releases or waivers of Liens specified in paragraph 14.07.A.2 and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

B. *Review of Application and Acceptance*

1. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application for Payment to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.09. Otherwise, ENGINEER will return the Application for Payment to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due*

1. Thirty days after the presentation to OWNER of the Application for Payment and accompanying documentation, the amount recommended by ENGINEER will become due and, when due, will be paid by OWNER to CONTRACTOR.

14.08 *Final Completion Delayed*

A. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed, and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by OWNER against CONTRACTOR, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

2. a waiver of all Claims by CONTRACTOR against OWNER other than those previously made in writing which are still unsettled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 *OWNER May Suspend Work*

A. At any time and without cause, OWNER may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes a Claim therefor as provided in paragraph 10.05.

15.02 *OWNER May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. CONTRACTOR's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.07 as adjusted from time to time pursuant to paragraph 6.04);

2. CONTRACTOR's disregard of Laws or Regulations of any public body having jurisdiction;

3. CONTRACTOR's disregard of the authority of ENGINEER; or

4. CONTRACTOR's violation in any substantial way of any provisions of the Contract Documents.

B. If one or more of the events identified in paragraph 15.02.A occur, OWNER may, after giving CONTRACTOR (and the surety, if any) seven days written notice, terminate

the services of CONTRACTOR, exclude CONTRACTOR from the Site, and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the Site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case, CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by OWNER arising out of or relating to completing the Work, such excess will be paid to CONTRACTOR. If such claims, costs, losses, and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses, and damages incurred by OWNER will be reviewed by ENGINEER as to their reasonableness and, when so approved by ENGINEER, incorporated in a Change Order. When exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

C. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.03 OWNER May Terminate For Convenience

A. Upon seven days written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Contract. In such case, CONTRACTOR shall be paid (without duplication of any items):

1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. for all claims, costs, losses, and damages (including but not limited to all fees and charges of

engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and

4. for reasonable expenses directly attributable to termination.

B. CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 CONTRACTOR May Stop Work or Terminate

A. If, through no act or fault of CONTRACTOR, the Work is suspended for more than 90 consecutive days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within 30 days after it is submitted, or OWNER fails for 30 days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days written notice to OWNER and ENGINEER, and provided OWNER or ENGINEER do not remedy such suspension or failure within that time, terminate the Contract and recover from OWNER payment on the same terms as provided in paragraph 15.03. In lieu of terminating the Contract and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within 30 days after it is submitted, or OWNER has failed for 30 days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may, seven days after written notice to OWNER and ENGINEER, stop the Work until payment is made of all such amounts due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.04 are not intended to preclude CONTRACTOR from making a Claim under paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping the Work as permitted by this paragraph.

ARTICLE 16 - DISPUTE RESOLUTION

16.01 Methods and Procedures

A. Dispute resolution methods and procedures, if any, shall be as set forth in the Supplementary Conditions. If no method and procedure has been set forth, and subject to the provisions of paragraphs 9.09 and 10.05, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

ARTICLE 17 - MISCELLANEOUS

17.01 *Giving Notice*

A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Agreement.

17.05 *Controlling Law*

A. This Contract is to be governed by the law of the state in which the Project is located.

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SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract and other provisions of the Contract Documents as indicated below. All provisions which are not so amended or supplemented remain in full force and effect.

ARTICLE 1 - DEFINITIONS

- SC-1. The terms used in these Supplementary Conditions which are defined in the General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions.

ARTICLE 4 - AVAILABILITY OF LAND; PHYSICAL CONDITIONS; REFERENCE POINTS

- SC-4.02 Soil investigation was conducted by Geotek Engineering and Testing Services, Inc., Sioux Falls, SD and is included in these Specifications.

ARTICLE 5 - BONDS AND INSURANCE

Performance, Payment and Other Bonds

- SC-5.01 Bid Alternates 1 and 2 provide the cost for Performance and Payment Bonds. If the Owner selects either Bid Alternate 1 or 2 or both, then the General Conditions Subsection 5.01, paragraphs A, B and C shall apply to the contract. If the Bid Alternates are not selected then that portion of the General Conditions shall be deleted in its entirety.

Contractor's Liability Insurance:

- SC-5.04 The limits of liability for the insurance required by paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

5.04.A.1 and 5.04.A.2.

Worker's Compensation, etc. under paragraph 5.04.A.1 and 5.04.A.2 of the General Conditions:

- (1) State: Statutory
- (2) Applicable Federal
(e.g. Longshoreman's) Statutory
- (3) Employer's Liability: \$ 100,000

5.04.A.3, 5.04.A.4, and 5.04.A.5.

Comprehensive General Liability (under paragraphs 5.04.A.3 through 5.04.A.5 of the General Conditions):

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(1) Bodily Injury (including completed operations and products liability).

<u>\$ 1,000,000</u>	Each Occurrence
<u>\$ 1,000,000</u>	Annual Aggregate, Products and Completed Operations

(2) Property Damage:

<u>\$ 1,000,000</u>	Each Occurrence
<u>\$ 1,000,000</u>	Annual Aggregate

or a combined single limit of \$ 1,000,000

Property Damage liability insurance will provide
Explosion, Collapse and Underground coverages where
applicable.

5.04.A.6. Comprehensive Automobile Liability:

(1) Bodily Injury:

<u>\$ 1,000,000</u>	Each Person
<u>\$ 1,000,000</u>	Each Accident

(2) Property Damage:

<u>\$ 1,000,000</u>	Each Occurrence
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or a combined single limit of \$ 1,000,000

Contractual Liability Insurance:

SC-5.04.B.4. The Contractual Liability required by paragraph 5.4 of the General
Conditions shall provide coverage for not less than the following amounts:

5.04.B.4.1. Bodily Injury:

<u>\$ 1,000,000</u>	Each Occurrence
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5.04.B.4.2. Property Damage:

<u>\$ 1,000,000</u>	Each Occurrence
<u>\$ 1,000,000</u>	Annual Aggregate

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Owners Liability Insurance:

- SC-5.05. OWNER and ENGINEER shall be included by endorsement as additional insured on CONTRACTOR's General Liability Policy.

Property Insurance:

- SC-5.06. Contractor shall provide "all-risk" insurance in accordance with paragraph 5.06.A. of the General Conditions.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

Labor, Materials and Equipment

- SC-6.03.A. With regard to utilities it is the intent of these documents that the CONTRACTOR will furnish the necessary utilities needed for completion of the work at no cost to the OWNER. The OWNER will furnish the necessary water required in the disinfection, testing and flushing of the water distribution system, at no cost to the CONTRACTOR.

ARTICLE 14 – DISPUTE RESOLUTION

Methods and Procedures:

- SC-16.01 This section of the General Conditions is hereby revised to allow for optional mediation or arbitration upon the specific agreement of both parties. It is further required that if arbitration is selected, that the arbitration panel in rendering any award, must issue a written explanation of the rationale for any award, including a detailed findings of fact, conclusions of law and an allocation of the award to specific items of work.

END OF SUPPLEMENTARY CONDITIONS

DIVISION 1 - GENERAL REQUIREMENTS

VERASUN ENERGY INC. - WATER SUPPLY WELLS BROOKINGS COUNTY, SOUTH DAKOTA SECTION 1A - GENERAL REQUIREMENTS

I. SUMMARY OF THE WORK.

1.01 Work Under this Contract: The work to be performed under this Contract consists of the construction of three (3) new water supply wells for VeraSun Energy near Aurora, South Dakota.

1.02 Character of Work: It is intended that the Contract Documents include all items requisite and necessary to finish the entire work properly, even though every item necessarily involved may not be particularly mentioned. All work when finished shall be turned over to the Owner in complete and undamaged state. The work shall be executed in the best and most workmanlike manner by qualified and efficient mechanics, in strict accordance with the Contract Documents.

1.03 Use of Site: The Contractor shall confine operations to those areas indicated in the Contract Documents and permitted by law, ordinances and permits. He shall not unreasonably encumber the site with any materials or equipment, and he shall not occupy sites without prior approval of the Owner.

1.04 Use of Completed Portions - Owner Occupancy: The Owner shall have the right to take possession of and use any completed or partially completed portions of the work. Such taking possession and use shall not be deemed as acceptance of any work not completed in accordance with the Contract Documents. If such prior use increases the cost or delays to the work, the Contractor shall be entitled to such extra compensation, or extension of time, or both, as the Engineer may determine.

1.05 Drawings: The Drawings, consisting of sheets dated August 2002, are a part and parcel hereof, and wherever the word Contract appears herein, the same shall be held to include the Drawings.

1.06 Surveys: The Owner will be responsible for all surveying and construction staking associated with this project.

1.07 Mechanical and Electrical Responsibility: The Contractor shall be responsible for making all changes in mechanical and electrical connections to the equipment he selects to be installed if said connections are different than shown on the Drawings.

II. SUBMITTALS.

2.01 Subcontractors and Suppliers: Within ten days after receipt of the Notice to Proceed, the Contractor shall submit to the Engineer a list, including names and addresses, of the subcontractors he proposes to use on the project and the suppliers of major equipment or material items.

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2.02 Construction Schedules: Within ten days after receipt of the Notice to Proceed, the Contractor shall submit to the Engineer a schedule showing the proposed progress of the construction. The schedule shall show the proposed starting and completion dates for the various stages of the construction and shall be prepared such that it can be used to plot actual progress against proposed progress. No progress payments will be made until the construction schedule is received.

2.03 Equivalent Products: Whenever in the Drawings or Specifications any material or process is indicated or specified by patent or proprietary name and/or by name of manufacturer, such Specifications shall be deemed to be used for the purpose of facilitating description of the material and/or process desired and shall be deemed to be followed by the words "or equivalent", and the Contractor may offer any material or process which shall be equal in every respect to that so indicated or specified; provided, however, that if the material, process, or article offered by the Contractor is not, in the opinion of the Engineer, equal in every respect, then the Contractor must furnish the material, process or article specified or one that, in the opinion of the Engineer, is equal thereof in every respect.

A. Prior Approval: The items of materials and/or equipment listed in the Appendix attached to this Section must receive approval prior to bidding if it is intended to furnish products other than those specifically named in the Specifications. The requirements for obtaining such approval is specified in the Instructions to Bidders. Submittals for prior approval shall include shop drawings and/or samples as required by these Specifications. The shop drawings shall be complete, including drawings, diagrams, illustrations, performance charts, brochures or other data necessary to demonstrate compliance of the item with the requirements of the Specifications. Samples shall represent the actual material or item to be furnished and shall include such necessary certification or documentation as to fully demonstrate compliance with the Specifications. Approval for equivalent products for items not listed herein will be given after the time of award of the Contract.

2.04 Shop Drawings and Samples:

A. General: The Contractor shall submit six (6) copies of shop drawings and/or samples as required by these Specifications prior to incorporating the items contained into the work. The shop drawings shall be complete, including drawings, diagrams, illustrations, performance charts, brochures or other data necessary to demonstrate compliance of the item with the requirements of the Specifications. Samples shall represent the actual material or item to be furnished and shall include such necessary certification or documentation as to fully demonstrate compliance with the Specifications. Submittals for shop drawings and samples shall be as specified under the appropriate section for the item and/or as listed in the Appendix attached to this Section.

B. Engineer's Review: Engineer's review action stamp, appropriately completed, will appear on all shop drawings of Contractor when returned by Engineer.

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Checking is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Any action shown is subject to the requirements of the Drawings and Specifications. Contractor is responsible for: Dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades and the satisfactory performance of his work.

III. TEMPORARY FACILITIES AND TRAFFIC CONTROLS.

3.01 Construction Area: The Contractor shall limit his construction operations to the areas indicated on the Drawings as construction areas. This shall include the operation and storage of equipment and the storage of materials for use on the project. The construction areas shall be maintained in a neat and orderly condition at all times.

3.02 Security: The Contractor shall provide security as required at the site. It shall be the Contractor's responsibility to provide such additional security as may be required to protect the construction and any materials and/or equipment stored on the site.

3.03 Access Roads: Access roads within the project area shall be kept open and maintained in a passable condition at all times.

3.04 Barricades and Warning Signs: The Contractor shall provide, erect, and maintain necessary barricades, suitable and sufficient lights, danger signals, signs and traffic control devices. The Contractor shall take all necessary precautions for the protection of the work and safety of the public. Highways and streets closed to traffic shall be protected by barricades. Obstructions shall be illuminated during hours of darkness. Warning signs shall be provided to control and direct traffic.

The Contractor shall erect warning signs in advance of the project where operations may interfere with the use of the road by traffic.

All traffic control devices and methods shall conform with the Manual on Uniform Traffic Control Devices for Streets and Highways issued by the United States Department of Transportation and adopted by the South Dakota Department of Transportation.

All costs for providing traffic control shall be incidental to the project.

IV. MATERIAL AND EQUIPMENT.

4.01 Storage and Protection: The Contractor shall, at all times, carefully and properly protect all materials and equipment, both before and after being used on the job, and all work performed by him, and provide any special protection from weather deemed necessary without additional cost to the Owner. The Contractor shall coordinate with the Engineer for

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designating storage areas and for the requirements for storage and protection. Storage of materials and equipment shall be within the area designated on the Drawings as the Construction Area.

4.02 Materials Sources: It shall be the responsibility of the Contractor to locate sources for all materials specified herein and for any other material or item required to produce or complete the materials and/or work specified. The Contractor shall bear all costs in connection with acquisition, transportation, preparation, fabrication and/or installation of the material or item in the final work.

V. CONSTRUCTION SEQUENCE.

5.01 Coordination: Bidders are advised that multiple contractors will be on-site performing work during the allowed construction period. Successful Bidders shall coordinate work as closely as possible with the well line construction contractor. Owner reserves the right to direct work as necessary to avoid conflicts among construction schedules.

VI. PROJECT CLOSEOUT.

6.01 Clean-Up: Upon completion of the work, the Contractor shall clean up the construction site and all of the facilities constructed thereon in such a manner that the site and facilities will be acceptable to the Owner for placing the work in service. The clean-up shall include the removal of all debris and matter not intended to be left on the site or in or around the site facilities. All areas and facilities shall be thoroughly cleaned and all work specified shall be completed prior to final acceptance of the project.

6.02 Acceptance of the Work: After the Contractor shall have completed the testing, and finished site clean-up of the completed job, a final inspection shall be conducted by the Engineer and the Contractor to ascertain that all items of the work are complete and in conformance with the requirements of the Contract Documents in all respects. In the event any discrepancies are found in the work, these discrepancies shall be rectified prior to acceptance of the work. At such time as all items of the work, including clean-up and testing of the work, are acceptable to the Engineer and the Owner, the Contractor shall be so notified in writing and the period of posting and publication prior to final payment shall begin.

6.03 Completion of the Work: The Contractor shall begin and complete the work within the times stated in the Proposal. The capacity of the Contractor's construction plant and the forces employed shall be such as to insure the completion of the work within the specified period of time. The damages that may result from any delay in completion of the work by the time agreed upon will be difficult to ascertain. If the work, or any part of it, is not completed on or before the date fixed for its completion by terms of the Contract, the

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Contractor shall pay the Owner liquidated damages in the amount as determined by the terms of the Contract.

6.04 Guarantee and Completion of the Contract: All work under this Contract will have a normal one year warranty after the date of final acceptance by the Owner.

During the warranty period, the Contractor shall be responsible for all repairs arising out of defective workmanship or materials, or both, which in the judgment of the Owner, shall become necessary during such period. If, within ten days after the mailing of a notice in writing to the Contractor or his agent, the said Contractor shall neglect to make, or undertake with due diligence, to make the aforesaid repairs, the Owner is hereby authorized to make such repairs at the Contractor's expense; providing however, that in case of an emergency where, in the judgment of the Owner, delay would cause serious loss or damage, repairs may be made without notice being sent to the Contractor and the Contractor shall pay the cost thereof. The terms of the Contract shall not be deemed to be completed until such time that the warranty period has ended and any remedial action required by the warranty has been performed by the Contractor. The Contractor's performance and payment bond shall remain in full force until such completion of the Contract.

6.05 Project Record Drawings: The Contractor shall keep one set of Plans and Specifications on the job, in good order, which shall be labeled "Record Copy". This set of Plans and Specifications shall be filed separately, kept clean and readable, and protected. Whenever changes and/or deviations from the original Contract Documents are made, the Contractor shall record such changes and deviations on the Record Copy and upon completion of the work shall certify and forward the Record Copy to the Engineer as "As-Constructed Documents".

6.06 Operation and Maintenance Data: The Contractor shall submit to the Engineer complete and detailed operation and maintenance data for the required items of equipment incorporated in the work. The data shall provide sufficient information for the Owner to properly and correctly operate and maintain the facilities with a minimum of expense and down time. Operation and maintenance data shall be submitted for the items which are specified elsewhere and which are listed in the Appendix attached to this Section. Six (6) copies shall be submitted.

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APPENDIX A

ITEMS REQUIRING PRIOR APPROVAL

None Required

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APPENDIX B

ITEMS REQUIRING SHOP DRAWING SUBMITTALS

- SECTION 2A - Well Screen
- SECTION 2A - Casing Pipe
- SECTION 2A - Pitless Adapter Unit
- SECTION 2A - Submersible Pump, Motor, and Check Valve
- SECTION 2A - Column Pipe
- SECTION 2A - Gravel Pack Material
- SECTION 2A - Electrical Panel

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APPENDIX C

ITEMS REQUIRING OPERATION AND MAINTENANCE DATA SUBMITTALS

SECTION 2A - Well Pump and Motor

SECTION 2A - Pitless Adapter Unit

END OF SECTION 1A

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SECTION 1B – MOBILIZATION/DEMOBILIZATION

I. DESCRIPTION.

1.01 This item shall consist of preparatory work and operations, including, but not limited to the necessary movement of personnel, equipment, and incidentals to and from the project site; for the establishment of offices, buildings and other facilities necessary for work on the project; and for work and operations which must be performed, and for cost incurred before starting work on the various contract items on the project site.

II. BASIS OF PAYMENT.

2.01 Payment shall be made at the Contract Lump Sum price for “Mobilization/Demobilization”, as stipulated in the Bid, which price and payment shall be considered full compensation for all mobilization and/or re-mobilization costs. Partial payments for mobilization shall be made in accordance with SDDOT Standard Specifications for Roads and Bridges, 1998 Edition, Section 9.10 – Mobilization.

END OF SECTION 1B

DIVISION 1 - GENERAL REQUIREMENTS

VERASUN ENERGY INC. – WATER SUPPLY WELLS BROOKINGS COUNTY, SOUTH DAKOTA SECTION 1C – MEASUREMENT AND PAYMENT

I. DESCRIPTION.

1.01 This section covers methods of measurement and payment for items of work as listed on the Unit Price Bid Schedule.

II. METHOD OF MEASUREMENT AND PAYMENT.

2.01 Mobilization and Demobilization: The mobilization and demobilization of all equipment, tools, materials and manpower to the well site for the VeraSun Energy near Aurora, South Dakota, as required to complete the drilling of all three (3) wells, shall be paid for at the Contract lump sum price for "Mobilization and Demobilization" as stipulated in the Bid, which price and payment shall be full compensation for mobilization and demobilization of all equipment, tools, material and manpower to complete the wells. Mobilization and demobilization will be paid only once at the completion of the wells.

2.02 Drilling Test Holes: The drilling of test holes shall be measured by the number of lineal feet of test holes actually drilled to designated bottoms. No other measurement for payment shall be authorized under this item.

The drilling of test holes shall be paid for at the contract unit price per linear foot for "Test Holes" as stipulated in the Bid, which price and payment shall be full compensation for all transportation, furnishing all labor, tools, equipment, materials, supplies, plant and other necessary items required to drill the test holes, logging and sampling of each strata of the formation, filling abandoned test holes, clean-up and other appurtenances required to complete the work under this section.

2.03 Drilling Permanent Well: The drilling of the well shall be measured in lineal feet of depth which shall be the total depth of the permanent casing plus screen. Payment for drilling shall be made at the Contract unit cost per lineal foot for "Drilling Permanent Well Hole" for 14" well screen and casing, as stipulated in the Bid which price and payment shall be full compensation for all transportation, labor, tools, supplies, materials and equipment required to construct the well hole for both the permanent casing and the screen, sampling of the formation if requested, and all other pertinent work required to complete the hole.

2.04 Permanent Casing: The permanent casing installed in the wells shall be measured by the actual length in feet of casing furnished and installed. Payment for casing shall be made at the Contract unit price per lineal foot for "14" Well Casing", for the 14" well casing, as stipulated in the Bid, which price and payment shall be full compensation for all transportation, labor, tools, material, supplies and equipment required to furnish and install the casing in its final location.

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2.05 Well Screen: The well screen installed in the well shall be measured by the actual length in feet of screen furnished and installed, measured from and including the bail bottom to the top of the connection to the casing. Payment for well screen shall be made at the Contract unit price per lineal foot for "14" Well Screen," as stipulated in the Bid, which price and payment shall include all transportation, labor, tools, material, supplies and equipment required to satisfactorily install the well screen to its final location.

2.06 Selected Silica Gravel Pack: The selected silica gravel used for the gravel wall around the well screen and casing shall be measured in vertical lineal feet of gravel pack material installed in the annular space of the wells. Payment shall be made at the Contract unit price per vertical lineal foot for "Selected Silica Gravel Pack", as stipulated in the Bid, which price and payment shall be full compensation for all transportation, labor, tools, material and equipment required to construct the selected silica gravel pack in a satisfactory manner. Measurement will be made to the nearest tenth of a ton.

2.07 Bentonite Seal: The bentonite material used for the bentonite seal around the well casing shall be measured in vertical lineal feet of annular space for the total length of the bentonite hole plug seal. Payment shall be made at the Contract unit price per linear foot for "Bentonite Seal", as stipulated in the Bid, which price and payment shall be full compensation for all transportation, labor, tools, material and equipment required to construct the bentonite seal in a satisfactory manner.

2.08 Concrete Grout Seal: The concrete grout used for seal around the well casing shall be measured in vertical lineal feet of depth of seal. Payment shall be made at the Contract unit price per lineal foot for "Concrete Grout Seal", as stipulated in the Bid, which price and payment shall be full compensation for all transportation, labor, tools, materials and equipment required to construct the concrete grout seal in a satisfactory manner.

2.09 Development of Permanent Well: Complete development of the well shall be measured by the complete item to produce a clear and sand-free effluent from the well. Payment shall be made at the Contract unit price for "Development of Well", based on actual pump operation time, as stipulated in the Bid, which price and payment shall be full compensation for all transportation, labor, tools, materials and equipment required to develop the well in a satisfactory manner, including surging, backwashing, installation and removal of test pump, disinfecting the well, clean-up and other appurtenances required to complete the work. The period of development shall be not less than 6 hours per well under this item.

2.10 Furnish and Install Pitless Adapter Unit. The pitless adapter unit installed in the well shall be measured as a single unit of work furnished and installed. Payment for Pitless Adapter Unit shall be made at the Contract unit price for "Furnish and Install Pitless Adapter Unit" for each unit installed as stipulated in the Bid, which price and payment shall include

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all transportation, labor, tools, material, supplies and equipment required to satisfactorily install the pitless adapter units in their final location.

2.11 Furnish and Install Submersible Well Pump. The submersible well pump with integral check valve installed in the well shall be measured as a single unit of work furnished and installed. Payment for Submersible Well Pump shall be made at the Contract unit price for "Furnish and Install Submersible Well Pump" for each pump installed as stipulated in the Bid, which price and payment shall include all transportation, labor, tools, material, supplies and equipment required to satisfactorily install the submersible well pumps in their final location.

2.12 Furnish and Install 8" Stainless Steel Column Pipe. The 8 inch stainless steel column pipe installed in the well shall be measured by the actual length in feet of column pipe furnished and installed. Payment for casing shall be made at the Contract unit price per lineal foot for "8" Stainless Steel Column Pipe and couplings", for the column pipe, as stipulated in the Proposal, which price and payment shall be full compensation for all transportation, labor, tools, material, supplies and equipment required to furnish and install the column pipe in its final location.

2.13 Concrete Pad at Well: The concrete pad to be installed at each well shall be measured as a single unit of work furnished and installed. Payment for the concrete pad shall be at the contract Unit Price for "Furnish and Install Concrete Pad at Well" for each concrete pad installed as stipulated in the Bid which price and payment shall include all transportation, materials, formwork, labor, tools, supplies and equipment necessary to satisfactorily construct the concrete pad at the location and to the dimensions and elevations indicated in the Drawings.

2.14 Test Pumping: Test pumping of the well shall be measured on the basis of the number of hours of actual pumping. The services to be provided as a part of the test pumping shall include staff to operate the test pump, staff to read and record water level measurements in the pumped well and an adjacent test well during both the test pumping period and a recovery period of not less than 6 hours, and staff to read and record the rate of flow from the test pump during the test period. Payment shall be made at the Contract Unit price for "Test Pumping" based on actual pump operating time as stipulated in the Bid, which price and payment shall be full compensation for all transportation, labor, tools, materials and equipment required for the test pumping period and recovery period. The period of test pumping shall be nine (9) hours per well unless modified by the Engineer.

2.15 Surface Restoration All Surface Restoration shall be measured as a single unit of work. Payment for Surface Restoration shall be made for the Contract Lump Sum price for "Surface Restoration" as stipulated in the Bid Schedule. This price and payment shall be full compensation for all labor, tools, equipment, and materials for surface restoration including site cleanup, site preparation, soil testing, topsoiling, topdressing, seeding,

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SECTION 1C – MEASUREMENT AND PAYMENT

fertilizing, mulching, watering, removal of unwanted vegetation, maintenance and other incidentals to restore the areas disturbed by construction of the water supply wells in accordance with the plans and Specifications.

2.16 Furnish and Install Electrical Panels: The Electrical panels shall be measured as a complete unit of work satisfactorily furnished and installed. Payment shall be made at the Contract unit price for “Furnish and Install Electrical panel” as stipulated in the Bid, which price and payment shall be full compensation for furnishing all labor, tools, equipment and materials necessary to design, furnish, and install a well control panel, mounting assembly and all appurtenances and incidentals required to complete the work in accordance with these Specifications.

2.17 Furnish and Install Check Valve. The check valve installed in the well will be an integral part of the submersible well pump. Furnishing and installing the check valve will be considered incidental to the installation of the pump.

END OF SECTION 1C

DIVISION 2 - SITE WORK

VERASUN ENERGY INC. – WATER SUPPLY WELLS BROOKINGS COUNTY, SOUTH DAKOTA SECTION 2A - PRODUCTION WELLS

I. GENERAL.

1.01 Scope: This specification is intended to provide the information necessary for all parties concerned with the contract to know the nature and amount of equipment, materials and work required to successfully complete three (3) production wells in a new well field in accordance with the South Dakota Well Construction Standards (ARSD 74:02:04).

These Specifications are in accordance with the American Water Works Association Standard for Deep Wells (AWWA A100). These Specifications are intended to supplement or modify the standards to fit the needs or expected conditions. Also, for more detailed description of the work to be performed, reference is made to a particular section of the AWWA Standard.

1.02 Location: The proposed water supply wells to be constructed under these Specifications are located in the Northeast $\frac{1}{4}$ of Section 34, Township 110 North, Range 49 West, or approximately $\frac{1}{2}$ of a mile north of the City of Aurora, South Dakota. The wells will serve as water supply wells for VeraSun Energy, Inc.

1.03 Location Conditions: The Contractor shall satisfy himself regarding all local conditions affecting his work by personal investigation. Neither the site information contained in these Specifications nor that derived from maps or plans or from the Owner or his agents or employees shall act to relieve the Contractor from any responsibility hereunder from fulfilling any and all of the terms and requirements of his contract.

The Contractor shall make his own arrangements for water required for drilling of the wells. The contractor has the option of installing a temporary well and pump for a water supply for drilling. Water used for drilling, if other than from well itself, shall be chlorinated clear water containing a free chlorine residual at the time of use. The temporary well shall be removed upon completion of construction of the production wells.

1.04 Shop Drawings: Shop drawings shall be submitted in accordance with the General Requirements for the following items:

1. Wellscreen with dimensions, details and materials of construction.
2. Pitless adapter unit with dimensions, details and materials of construction.
3. Well pump with dimensions, details, materials of construction, motor data, certified pump curves, analysis of critical speed, operating requirements, and manufacturers description of pump characteristics.
4. Column pipe with dimensions, details and materials of construction.
5. Pump Control/Electrical system with dimensions, details, materials of construction, and electrical diagrams.

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1.05 Personnel and Drilling Equipment: The Contractor shall supply capable and experienced personnel and suitable drilling equipment to perform this work. Each bidder shall supply a list along with his bid which shows:

- A. Experience record of Contractor on wells of similar depth and capacity.
- B. Name and experience record of person or persons likely to serve as construction superintendent.
- C. Manufacturer's name and model number of drilling machine or machines to be used.
- D. The Contractor shall submit documentation indicating he is a licensed driller in accordance with SDCL 46-6-9.

Adequate safety equipment, i.e, hard hats, hard toed shoes, and gloves shall be used by the drilling crew while on the job site.

Drilling method used shall be one of the following; reverse circulation rotary, forced caisson, or boring with an auger bucket. However, no special drilling mud shall be used in the drilling operation in order to prevent invasion of the formation.

1.06 Permits: After the award has been made, the Contractor shall apply for and acquire permits from authorized agencies, as required. No field operation shall commence until these necessary approvals have been obtained.

II. PRODUCTS.

2.01 Well Casings (typ. of 3 wells): All well casings shall be new. They shall be of steel and shall conform to AWWA-A100. The well casing may not be mill reject. The casing shall be joined by either (1) welding in accordance with the Standards of the American Welding Society or (2) threaded and coupled joints.

- A. Production Casing - This casing shall have a nominal diameter of 14 inches, and a weight of at least 66 lbs. per foot.
- B. The Contractor shall deliver two copies of the mill certificate to the Engineer for approval before delivering the casing to the job site.

2.02 Concrete Grout Seal (typ. of 3 wells): The concrete grout seal shall consist of a neat cement grout mixture of high sulfate resistant portland cement (ASTM C150) and not more than 6 gallons water per bag (one cubic foot or 94 lbs.) of cement. The water used shall be fresh, clear and potable.

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2.03 Bentonite Clay Plug (typ. of 3 wells): The bentonite plug shall be a bentonite grout pumped into the annular space through a tremie pipe. Bentonite grout shall be a mixture of water and a minimum of 10% by weight of bentonite and 10% by weight of washed sand, cutting taken from the bore hole, or granular bentonite: or a mixture of water and a minimum of 15% by weight of bentonite. Bentonite used for grout must be either natural-mined montmorillonite clay without additives or be a bentonite meeting NSF Standard 60. The use of bentonite pellets or chips is prohibited.

2.04 Well Screen (typ. of 3 wells):

- A. Material and aperture opening. The well screen and its fittings shall be manufactured entirely of Type 304 stainless steel. The well screen aperture opening shall be determined by the well screen manufacturer. It shall have sufficient open area to transmit the desired yield of 600-700 gpm at an aperture entrance velocity equal or less than 0.05 feet per second.
- B. The well screen shall be of the continuous slot, wire wound type. It shall have a nominal inside diameter of 14 inches. Intermediate screen sections shall be joined by welded connections. The welding rod shall be of material suitable for joining stainless steel in order not to reduce the corrosion resistance. The rod selected must be approved by the Engineer.
- C. The bottom of the screen shall be fitted with a closed bail bottom of the same connecting material as the screen. Bail depth below screen area shall be not less than 24". Top of screen section shall be fitted with a 14" well casing nipple.
- D. Well screen shall be similar and equal to Johnson Well Screen Watermark or Houston.

2.05 Gravel Pack Material (typ. of 3 wells): The gravel to be used for the gravel wall around the screen and casing shall be well-rounded particles containing not less than 95% siliceous material with not more than 5% calcareous materials. The gravel shall be washed and screened to required sizes for maximum aquifer development. Gravel shall be as produced by Northern Sand and Gravel of Muscatine, Iowa, or Eau Claire Sand and Gravel of Eau Claire, Wisconsin. The gravel size and samples shall be submitted to the Engineer along with certified tests prior to installation. Additional samples shall be selected by the Engineer during installation of the gravel wall. All gravel shall be furnished in bags properly labeled.

- A. The grading of the gravel pack shall be selected by the screen manufacturer.
- B. The gravel pack material shall be delivered to the job site in clearly labeled bags.

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2.06 Pitless Adapter Unit and Drop Pipe (typ. of 3 wells): The pitless adapter unit shall be 14-inch O.D. by 7 foot bury and of the positive self-sealing industrial heavy duty type. It shall have the capability for a minimum full 14-inch diameter thru-seal area for well maintenance purposes.

Positive pressure "0" ring seals shall be used throughout both for internal well sealing and external surface water sealing. Positive threaded well vent, cable entrance, and extra openings shall be provided and capped. An 8-inch mechanical joint discharge connection one foot from the end of the pitless unit shall be provided. A 1-inch drop tube attached to port in cover of the pitless unit shall be provided for drawdown measuring. Drop tube shall be Schedule 80 PVC pipe.

The pitless adapter unit shall be a Baker Monitor Division No. 7PS1418WBWE08M8SP, or Maas Heavy Duty (HD) MB Pitless Adapter.

2.07 Well Pump (typ. of 3 wells):

- A. Scope: The work to be done under this section of the Specifications includes all transportation, labor, tools, supplies, plant, and equipment for furnishing and installation of submersible electric motor driven turbine pumps at the well sites for VeraSun Energy Inc., Brookings, South Dakota.
- B. Pump Construction: The pump to be furnished under these Specifications is to be a standard well-known make by a manufacturer with a past record of building reliable well pumps. The pump must comply in all respects with the applicable regulations of the South Dakota Department of Environment and Natural Resources and AWWA Standard E100 Part B.

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1. Pumping Conditions:

Well Number	(typ. of 3 wells)
Well I.D.	14"
Depth of Well***	54'
Approx. Ground Elevation	1635'
Approx. Static Water Level Elev.**	1618'
Depth from Ground to Top of Well Screen**	42'
Maximum Pumping Depth Available**	25'
Depth from Ground to Bottom of Well Pump	53'
Total Dynamic Head (T.D.H.) @ Shutoff	135'
T.D.H. @ Design (500 gpm) & Eff.: 77 %	112'
T.D.H. @ Point (660gpm) and Eff. 81%	93'
T.D.H. @ Runout (820 gpm) & Eff.: 70%	64'
Minimum Motor Size	20HP
Column Pipe Size	8"

* Variable, measured from existing grade, shall be verified by pilot boring.

** Based on test well drilling TH74 of the South Dakota Geological Survey located NE of the site. Shall be verified during well test.

Total dynamic head does not include losses in pumping unit.

The pump capacity shown above shall be the capacity, exclusive of all losses in the pumping unit, at an operating speed of not to exceed 3600 RPM. The impeller efficiency at the design condition shall not be less than the efficiency shown and the design capacity shall be slightly less than capacity at peak efficiency to avoid cavitation. The Contractor must supply efficiency and operating curves for approval. The entire pump assembly must be capable of passing through the 14-inch diameter opening of the pitless adapter. Pump curve points listed are those of a Grundfos Model 625S submersible pump. Pump housing shall be constructed of 316 stainless steel.

2. Bowl Assembly: The bowls shall be constructed of stainless steel close-grained cast iron, bronze, or Meehanite, and shall be free of blow holes or sand holes and other defects. Each bowl shall be fitted with a bronze sleeve type or stainless steel/NBR bearing.

The impellers shall be of stainless steel and the closed type. They shall be accurately fitted, smoothly finished and suitably balanced to give smooth,

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efficient operation. The impeller unit is to be furnished with a sufficient number of stages to efficiently meet the conditions outlined above.

The shaft shall be of 431 stainless steel and be of adequate diameter to safely transmit all loads placed upon it.

The bowl assembly shall be equipped with a suitable, stainless steel strainer at the suction intake.

3. Discharge Column: The column pipe shall be schedule 40 stainless steel pipe with stainless steel threaded sleeve type couplings. The column pipe shall be 8-inch nominal diameter. The pump setting measured from top of the lower bowl assembly to the top of the column pipe where it is attached to the pitless adapter shall be determined from field measurements after construction of the well.

4. Submersible Motor: The motor shall be of the completely enclosed type for continuous underwater operation on 460 volts, 60 cycle, 3 phase, A.C. current. The motor shaft shall be stainless steel. The motor shall be filled with high dielectric strength mineral oil and the oil shall be circulated throughout the motor for cooling the rotor, stator windings, and bearings. An approved type of mechanical seal shall isolate the well water from the oil. Motor may be water-filled design for cooling the rotor, stator windings and bearings. Motor housing shall be of 316 stainless steel. Motor horsepower shall be 20HP.

A stainless steel/NBR bearing shall be provided at each end of the rotor and a heavy thrust bearing shall carry the weight of all rotating parts and the hydraulic thrust of the pump. The oil pressure within the pump shall be hydrostatically balanced with the water outside the pump.

During motor start-up the current shall not exceed the normal running current by more than 500%. The motor manufacturer must provide a suitable means of accomplishing this.

The motor shall be supplied with a P.V.C. motor shroud to help cool the motor.

5. Power Cable: The power cable to the motor shall be impervious to moisture in addition to having high abrasion resistance. The cable shall be protected with a stainless steel guard where it passes by the bowl assembly to prevent damage from contact with the well casing. Stainless steel cable clamps shall be provided to support the cable along the column pipe. At least 25 feet of cable beyond the top of the column pipe shall be provided. The cable size shall be not less than No. 10 copper.

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6. Low-Level Cutoff: Probe type low-level controllers shall be furnished and installed with the pump under this item at the time when the pump is installed. The probe cables shall be freely-suspended from the pitless adapter unit and to facilitate withdrawal of the probe assemblies for maintenance purposes. The probe type relays shall be B/W controls induction relay or equivalent. The relays shall be compatible with the pump control panel. System shall be a three-probe system providing a separation of at least 2 feet between low water cutoff and pump restart.

7. Drawdown Gauge: A plastic tubing shall be furnished and installed with the pump as a means of determining water level. End the tubing slightly above the bowl. A drawdown gauge shall be furnished and attached to the pitless adaptor. Minimum diameter of the drawdown tube shall be 1" to allow insertion of well level probe.

8. Check Valve: The submersible pump shall be fitted with a check valve constructed of stainless steel or materials similar to those used in the construction of the pump to prevent dissimilar metals corrosion at the connections to the pump and column pipe. Check valves constructed of stainless steel shall have stainless steel housings, seats, and check valve internals. The valve shall be furnished with the pump as an integral part of the pump assembly.

C. Pump Approval: Well pumps bid for the submersible pump installation shall be Goulds or Grundfos. Pump suppliers, other than those named herein, must have approval from the Engineer on the type and model number of pump they intend to supply to meet the Specifications prior to bid opening. Final pump selection should be made upon completion of well development and test pumping.

2.08 Electrical and Controls (typ. of 3 wells):

1. Motor Starters: All starters shall be designed and tested to meet all applicable NEMA, IEEE, and ANSI published industrial standards. All starters shall be full voltage, across the line, circuit breaker type AC combination starters and shall be non-reversing.

Circuit breakers shall be motor circuit protector type with adjustable magnetic trip settings.

All starters shall be for use on a 480 volt, three phase, 60 hertz system and shall be appropriately sized for the well pump furnished. Motor starters shall be supplied complete with single phase, phase reversal, and low voltage protection. Contactor coils shall be rated for 120 volt operation from a control power transformer located within the panel.

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The motor starters shall be designed as a coordinated circuit breaker, contactor, and overload system.

Overload relays shall be an integral part of the starters. Overload relays shall have a ± 15 percent adjustment. A continuous selection of motor full load currents can be obtained through the size limitations of the starters. Overload relays shall be field convertible from manual reset to automatic reset. The starter shall be inoperative unless thermal units are installed. Starters shall be supplied complete with two normally open and two normally closed auxiliary contacts to monitor motor status. In addition, the starter control shall provide a means for connecting an external dry contact to call for the pump.

Combination motor starters shall be as manufactured by Square D, GE, Allen-Bradley or equal.

2. Control Panel Enclosures: The control panel enclosures shall be totally enclosed cabinet type with dead front exterior door, operating panel front on an interior door, continuous hinge on both doors, stainless steel door clamps, padlock hasp and staple, and full size stationary equipment mounting panels. Enclosures shall be of NEMA type 4 construction. Panel shall be equipped with a 110 volt thermostat controlled resistant heater to control moisture condensation in the panel.

Enclosures shall be not less than 48"H x 36"W x 12"D.

Enclosures and panels shall be 14-gauge (minimum) steel and of formed and welded construction suitable for wall mounting as indicated. Enclosures interior finish including mounting panels shall be white enamel. Exterior finish shall be gray low-gloss industrial lacquer 1 mil dry.

Control panel enclosure shall be as manufactured by Hoffman Engineering Company, Equipto Enclosures or equal.

3. Conduit:

- A. Galvanized Rigid Conduit (GRC) for general use shall be sized as required by the NEC or as indicated on the drawings.
- B. PVC conduit shall be Schedule 40 sized as indicated on the drawings.
- C. Liquid-tight flexible metal conduit for general use shall be galvanized steel, with steel fittings and coated with liquid-tight jacket of flexible polyvinyl chloride.

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4. Conductors:

A. Provide factory-fabricated wire of sizes, ratings, materials, and types indicated for each service. Where not indicated, provide proper selection as determined by installer to comply with project's installation requirements, NEC standards, and U.L. requirements for termination of wire to circuit breakers, e.g., circuit conductors connected to the terminals must not operate at more than a 75 degrees C. ampacity for breakers rated over 100 amps and must not operate at more than 60 degree C. ampacity for breakers rated 100 amps or less. Select from the following types, materials, conductor configurations, insulation and coverings:

UL Type: THHN, THWN.

Minimum size: 12 AWG.

Material: Copper

Conductors: Solid (12 AWG to 8 AWG).

Conductors: Concentric-lay stranded (standard flexibility), (6 AWG and larger).

5. Receptacles: Provide heavy-duty duplex receptacles, 2-pole, 3-wire, grounding, 15-amperes, 125-volts, with metal plaster ears, design for side and back wiring, NEMA configuration 5-15R.

6. Switches: Provide general-duty flush, single-pole toggle switches, 15-amperes, 125 volts, with mounting yoke insulated from mechanism, switch handle, and side-wired screw terminals.

7. Incandescent Fixture: Provide keyless porcelain socket rated for 100 watt incandescent lamp at 120 volt. Provide one (1) 100 watt, A19, incandescent lamp per fixture.

8. Service Entrance Heads: Service entrance heads shall be threaded hub vertically mounting type with the number and size of wire knockouts as required to accept the indicated cable. Service entrance heads shall be as manufactured by Killark Electric or equal.

9. Ground Rods: Ground rods shall be copper-clad steel, sized as indicated.

10. Status Indication Lights: Indicating lights shall be the "push to test" type complete with incandescent lamps, lens and contact blocks. Indicating lights shall be heavy duty, oil tight units. Indicating lights shall be as manufactured by General Electric, Allen Bradley, Square D. Co. or an Engineer approved equal.

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11. Hand-Off-Auto Selector Switches: Hand-Off-Auto selector switches shall be oil tight switches with maintained contacts. The operating handle of the switches shall be similar in style to the existing well control switches. Switches shall be as manufactured by Square D, General Electric, or Engineer approved equal. Hand position of the switch shall permit local control of operation. Auto position shall permit start/stop control from a remote location. Control signal shall be a dry contact closure rated for 110 volts.

12. Control Relays: Control relays shall be rated for 300 volts with coil voltages and contact arrangement required to implement the control and instrumentation loops indicated. Relays shall have convertible contact cartridges which can be arranged in any combination of normally open and normally closed contacts. Control relays shall be used for switch loads rated at 100 volts AC or DC or greater. Control relays shall be as manufactured by Allen Bradley Bulletin 700, Cutler Hammer, or an Engineer approved equal.

13. Phase Failure Relays: Phase failure relays shall be installed to sense loss of power in one or more phases of the utility power. The phase failure relays shall be incorporated in the motor control circuit so the motor power is disconnected upon loss of a phase. The timing relays shall contain contacts of the voltage and current ratings required to implement the control functions indicated.

14. Terminal Blocks: Terminal blocks for all external connections shall be rated at 600 volts. Terminal blocks for internal panel connections of AWG No. 14 conductor and smaller shall be rated at 300 volts. White terminal marking strips indicating point identification and diode or capacitor polarity shall be installed on each terminal block. Terminal blocks shall include disconnect switch terminal block sections suitable for interrupting control voltages where a control voltage source enters the enclosure from a remote location.

15. Conductors: Conductors for 120 volt control and indication loads shall be AWG No. 14 stranded copper conductors. All conductors shall be identified at both ends with permanent wire markers utilizing wire numbers matching those on the control system wiring diagrams.

16. Warning Sign: A warning sign shall be placed in the interior of the control panel indicating the presence of externally derived power within the enclosure. The sign shall be a minimum of 5 inches by 7 inches and shall be red in color with white lettering. Materials for the sign shall be as specified in Para. 2.08.17. Nameplates.

17. Nameplates: Nameplates shall be laminated phenolic sheeting with white core and satin finish melamine overlay. Nameplates shall be black and shall be 0.040 to 0.045 inch thick. Legend engraving shall be through the overlay to expose the core, and all edges shall be beveled to expose the core on the perimeter.

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18. Enclosed Circuit Breakers: Enclosed circuit breakers shall be molded case type suitable for operation on the services indicated on the drawings. Breaker shall have a NEMA Type 1 enclosure with an integral operating handle whose operating position is easily recognizable and is padlockable in the on or off position. Provide lugs suitable for the termination of the conductors indicated.

19. Control Power Transformer: A control power transformer shall be furnished and installed to provide single phase 110V power for the control, heat, and lighting circuits. The transformer shall be sized to provide capacity to operate the control circuits, low level cutout, light and panel heater.

20. Panel Support System

a. Plywood Backboard: Plywood backboard shall be pressure-treated in accordance with AWPA C9 as required for above ground exposure. Plywood shall have an "exterior" exposure durability classification in accordance with the APA performance rating criteria. Plywood shall be appropriately marked attesting to compliance with the treated drying, retention, and penetration requirements of the AWPB-FDN Standard.

b. Poles: ANSI Standard 05.1, machine-trimmed by turning, pressure-treated in accordance with AWPS Standard C4; creosote conforming to AWPS Standard P2, and oil-borne preservatives and petroleum conforming to AWPS Standards P8 and P9. Pressure treatment of Northern White Cedar shall be as specified for Western Red Cedar. Pressure treatment of Western Fir and Western Hemlock shall be as specified for Douglas Fir.

c. Crossarms: EEI Specification TD-90 pressure-treated dense or close-grain Douglas Fir, or EEI Specification TS-91, pressure-treated dense Southern Pine, of sizes specified or indicated; pressure treatment shall conform to AWPS C25.

21. Lightning Surge Arrestors: Lightning surge arrestors shall be rated medium duty, maximum 65 KA, 8 x 20uS each line to ground, and suitable for operation on a 480/277 VAC, 3 phase, 4 wire system. Arrestor shall have nanosecond, bipolar response, no discharge lag, no impulse voltage overshoot and shall be self-restoring. Arrestor shall be installed in a steel enclosure with hinged cover and threaded hubs and shall be as manufactured by Lightning Protection Corporation or equal.

2.09 Water for Drilling and Well Development (typ. of 3 wells): Water used for drilling and well development other than water from the well itself shall be chlorinated clear water containing a free chlorine residual at the time of use. Free chlorine residual concentration shall be not less than 0.5 mg/l.

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2.10 Concrete Pad:

- A. Use 10'-0"x10'- 0"x6" concrete pad reinforced with No. 3's @ 12" E.W. The concrete materials used shall meet the following requirements:
1. Portland Cement: ASTM C 150, Type I/II.
 2. Normal-Weight Aggregate: ASTM C 33, uniformly graded, not exceeding 1-1/2-inch (38-mm) nominal size.
 3. Water: Potable and complying with ASTM C 94.
- B. The concrete mix used shall meet the following requirements:
1. Comply with ACI 301 requirements for concrete mixes.
 2. Prepare design mixes, proportioned according to ACI 301, for normal-weight concrete determined by either laboratory trial mix or field test data bases, as follows:
 - a. Compressive Strength (28 days): 4000 psi (27.6 MPa)
 - b. Maximum Water-Cementitious Materials Ratio: 0.45
 - c. Slump: 4 inches
 3. Add air-entraining admixture at manufacturer's prescribed rate to result in concrete at point of placement having an air content of 6.0 percent within a tolerance of plus 1.0 or minus 1.5 percent.

III. EXECUTION.

3.01 Test Holes/Monitoring Wells and Obtaining Samples: Three test holes shall be drilled at locations selected by the Owner and Engineer approximately 50 feet from each production well location. Test holes shall be no smaller than six (6) inches diameter. Four (4) inch diameter test holes may be used if an electronic logger is used during the test drilling process. They shall be drilled to approximately 70' or through the water bearing formation if less than 70 feet. Inorganic mud may be used as the drilling fluid. These test holes shall include a 4" PVC casing with the bottom 1/3 being perforated and remain in place as monitoring wells.

An accurate driller's log of materials penetrated shall be recorded by the driller who must have the skills to determine the depths and thicknesses of the various underlying strata encountered.

A. Split Spoon Formation Samples from the pilot holes shall be collected and handled in accordance with Bulletin 638-S, "Instructions for Taking Formation Samples", published by UOP-Johnson Division.

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B. After the formation testing has been completed, the pilot holes shall be filled with inert clay prepared and installed in accordance with the standard adopted by the South Dakota Department of Environment and Natural Resources. The site shall be obliterated and restored to original contour.

3.02 OBTAINING WATER SAMPLES:

A. Water samples shall be collected from each completed production well. Sample shall be collected near the end of the pump test.

B. Water samples shall be collected as outlined in "Standard Methods for the Examination of Water and Wastewater (17th Edition, 1989), published jointly by the APHA, AWWA, and WEF.

3.03 TESTING OF FORMATION AND WATER SAMPLES:

A. All samples will be sent to an approved laboratory whereby the following tests will be conducted at the Contractors expense. Contractor shall submit the name of the laboratory to be used for formation analysis. Approved laboratories for water analysis include:

State Health Lab
Pierre, South Dakota

Twin Cities Testing Lab
Rapid City, South Dakota

Water Purification Plant
Sioux Falls, South Dakota

1. Formation Samples:

- a. Sieve analysis using five or more standard sieves.
- b. Determination of effective size, uniformity coefficient and model size.
- c. Percent clay.
- d. Permeability.

2. Water Samples:

- a. Percent sand (as ppm after 15 minutes of pumping at a designated rate).

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b. Chemical analysis including:

- (1) Total dissolved solids
- (2) Total hardness
- (3) Total iron
- (4) Total manganese
- (5) Chlorides
- (6) Nitrates
- (7) Total alkalinity
- (8) Conductivity
- (9) pH (To be determined on site)
- (10) Sulfate

c. Temperature and pH of water when pumped shall be measured by the driller and recorded on sample.

3.04 Construction of the Well (typ. of 3 wells):

A. General: The Contractor shall drill the well at the locations designated by the Engineer. The Contractor shall drill the hole and install the materials previously described in order that the finished well shall conform to the design illustrated in the Drawings and any applicable standards established by local, state or federal regulatory agencies. The mud pit for the test drilling shall be positioned at least 10 feet from the proposed production well.

The Contractor shall dispose of cuttings and discharged water in a manner prescribed by the Engineer so as not to create damage to public or private property. During the test pumping, however, the water discharged shall be piped to a point of overland drainage.

B. Drilling - Casing Hole: The Contractor shall drill a 28-inch diameter hole to accommodate the 14" well screen to the depths shown on the Drawings. If the depths are adjusted because of underground conditions at the site, payment will be on the basis of unit price per lineal foot of the hole drilled.

C. Setting Steel Casing and Screen: The 14" diameter well screen shall be fastened to the casing by welding procedures conforming to the practice of the American Welding Society. Connection between the carbon steel casing and the stainless steel well screen shall be made using type 309 Stainless Steel welding rod. The top of the steel casing shall terminate approximately 7 feet below natural ground level where a 14-inch O.D. pitless adaptor unit shall be welded to well casing.

The well screen shall be centered in the hole such that a minimum of 7 inches exists between the face of the hole and the well screen. Centering guides shall be so spaced around and along the casing pipe to insure adequate clearance for the gravel pack and

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cementing operation. A minimum of two centering guides shall be used. One centering guide shall be immediately above the connection to the well screen.

1. After the casing and screen have been lowered into position and before gravel pack operations begin, the casing and screen shall be tested for plumbness and alignment. This test shall be made in accordance with Sec. 8, "Testing for Plumbness and Alignment", of the AWWA Standard A100. Should the casing fail to meet the requirements and interfere with the installation and/or operation of the pumping equipment. The plumbness and/or alignment shall be corrected by the Contractor at his own expense.

D. Gravel Packing: The gravel pack shall be introduced in such a manner that it is readily known (with 10% accuracy) how much volume of gravel is in the hole. It shall be placed in a manner uniform and continuous such that hydraulic segregation and bridging are minimized or eliminated.

1. The gravel shall be placed via gravity through two tremie pipes. These tremie pipes shall be located 180° apart in the annular space around the screen and inner casing. They shall terminate no more than 5 feet above the bottom of the hole or level of the gravel pack already placed in the hole. They shall be gradually lifted and sections removed as the level of gravel placed in the hole rises. Funnel fittings at the tops of the tremie pipes shall be used to facilitate the shoveling of the gravel into the tremie. Clean water shall be used to lubricate the downward movement of the gravel in the tremie pipes - usually from 1 to 3 gpm.
2. Five pounds of calcium hypochlorite (70% available chlorine) or an equivalent amount of liquid sodium hypochlorite per cubic yard will be mixed in with and placed with the gravel. The rest of the annular space will be sealed with cement grout and bentonite clay.

E. Grouting: Grouting of the steel casing shall be accomplished in the presence of the Engineer. It shall be grouted in one continuous operation, filling the annular space between the drilled hole and the casing to the land surface. A 1-foot clay plug or seal shall be placed on top of the gravel pack at the indicated level prior to placing the cement grout. The clay plug seal shall not extend more than four (4) feet above the top of the aquifer.

1. The grout shall be placed in the annular space between the drilled hole and casing by use of a grout pipe outside the casing. (AWWA Standard Section 7). The pipe shall extend to the bottom of the annular space initially and should remain submerged in grout during the entire time that grout is being placed.

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The pipe may be left in place, or it may be gradually removed. In the event of interruption of the grouting operations, the bottom of the pipe shall be raised above the grout level and should not be resubmerged until all air and water have been displaced from the grout pipe. The grout may be pumped into the pipe or applied continuously by gravity. The grout returning to the surface shall be wasted until the Engineer determines that the grouting has been satisfactory.

1. No further work shall be done on the well until the grout has firmly set. (A minimum of 72 hours for neat cement and 24 hours for quick-setting cement).

3.05 Developing the Well (typ. of 3 wells):

A. The development process shall be accomplished by simultaneous high velocity, horizontal-jetting and pumping. The O.D. of the jetting tool shall be one inch less in diameter than the screen I.D. The minimum exit velocity of the jetting fluid at the jet nozzle shall be 150 ft/sec. The tool shall be rotated at a speed less than 1 rpm. It shall be positioned at one horizon for not less than two minutes and then shall be moved to the next horizon which shall be no more than 6 inches vertically from the previous jetting horizon. The jetting shall proceed from the bottom of the screen to the top. Pumping from the well shall be at a rate from 5% to 15% more than that introduced through the jetting tool. Water to be used for jetting must be free of sand, turbidity and coliform bacteria. The Contractor has the option of using a surge block method for well development. Pumping rates and duration shall be as specified in Paragraph C. Minimum Development Time.

1. Means shall be provided for removal of sand jetted into the screen and which settles to the bottom and which is not being removed by the installed pumping equipment.

B. In conjunction with high velocity, horizontal-jetting and pumping the well shall be surged using a test pump capable of pumping 150% of the design yield. The surging action shall consist of alternately lifting a column of water to ground level and letting the water fall back in the well. The above process is known as raw-hiding the well. Any sand damage to the pump is the responsibility of the Contractor.

C. The minimum development time shall be six (6) hours per well. If the surge block method is used for development of the well, pumping rates shall be 400 gpm for two hours, 500 gpm for two hours, and 600 gpm for two hours in each well. Development shall continue until the Engineer decides further development is unnecessary

3.06 Testing the Wells (typ. of 3 wells):

A. Test Pump and Accessory Equipment: The Contractor shall furnish and install a test pump for pump testing the well. The test pump shall be a vertical turbine with sufficient column and shaft to allow for testing the well to 100 percent drawdown if requested. The test pump shall be operated from a diesel engine or electric unit with variable speed drives and of sufficient size to vary pumping rate from 200 gpm to 800 gpm. When the final test is initiated, it shall be conducted continuously without stoppage. The discharge from the pump shall be equipped with sufficient effluent pipe to carry the water away from the test area (minimum length of 500 feet) and shall be equipped with an orifice meter or other acceptable measuring device to observe the rate of discharge from the pump accurately.

1. A drawdown measuring tube of metal or plastic shall extend from the base of the pump discharge head to a depth no greater than 2 feet above the pump bowls. This tube shall permit the entry and use of a water level measuring device such as an electric sounder or a steel tape.

B. Pump Test: Each well shall be test pumped for a period of 9 hours. The discharge of the test pump shall be measured via a circular orifice meter and the water level measured with a suitable measuring device to the nearest 1/4 inch. Measurements of the yield and water level shall be made every minute for the first 10 minutes of the test, every 5 minutes for the next 90 minutes and then every 15 minutes until 3 hours have passed. Measurements between 3 and 5 hours should be made 30 minutes apart and then after 5 hours and until the end of the test they can be made hourly. A one-gallon water sample shall be obtained within 20 minutes after starting the pump and then about 5 minutes before shutting the pump down. After the pump is shut down, recovery measurements of the water level should be made for a period equal to at least one-half of the pumping period or until the water level has reached the original static level. The schedule of the recovery measurements shall be made at the same time intervals that the measurements were made during the pumping portion of the test.

Water levels shall be recorded at each of the production wells and the monitoring wells in the vicinity of the new production wells. Water level measurements shall be taken throughout the pump test and the recovery period specified. The Contractor shall furnish either a minimum of two individuals to the site for recording well level readings during the pump test or a means for simultaneous electronic recording of water levels at all monitoring locations. If an electronic means for recording drawdown levels is provided, the data gathered shall be printed in a report which includes calculated values for transmissivity and yield.

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C. Minimum Well Screen Efficiency. The pump test data will be used to calculate the efficiency of the well screen and gravel pack. If the calculation indicates the efficiency is less than 75%, the well shall be redeveloped at the unit price for development.

3.07 Installation of Pitless Adapter Units (typ. of 3 wells): After each well has been developed and the pump test completed, the Contractor will excavate and cut off the 14" casing at the elevation required to install the 7-foot bury 14-inch diameter pitless adapter. The pitless adapter shall be connected to the 14" steel well casing by butt welding.

3.08 Disinfecting the Well (typ. of 3 wells): The well shall be disinfected before removing the test pump from the well and before collecting any samples for determining microbiological quality. This shall be done by introducing a chlorine solution into the well such that a concentration of at least 50 ppm of available chlorine exists in all parts of the well at static conditions. The chlorine solution should be introduced into the well in such a manner that the well surfaces above the static level will be completely flushed with the solution. A minimum of 2 hours contact time should be provided before pumping the well to waste. No separate payment shall be made for this work. Disinfection of the well shall be considered subsidiary to this section of the Specifications. At all times the Contractor shall use all reasonable measures to prevent either tampering with the well or the entrance of foreign matter into it. The Contractor shall be responsible for any objectionable material that may fall into the well and its consequences until the completion and acceptance of the work by the Engineer.

3.09 Records:

A. Two copies of the driller's log for each well, signed and dated by the well driller shall be given to the Engineer. The logs will record the materials penetrated to the nearest foot. In addition to the two copies of the driller's log that are furnished to the engineer, one signed and dated copy of the driller's log shall be mailed to:

South Dakota Department of Environment and Natural Resources
Division of Water Rights
Joe Foss Building
523 East Capitol
Pierre, SD 57501-3181

The well construction records shall be filed by the driller pursuant to ARSD 74:02:04:65.

B. All static water level measurements will be recorded. This record along with the times that the measurements were made, will be given to the Engineer.

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C. A complete casing and screen location record shall be made by the driller and given to the Engineer. This will show the individual length of sections of casing and screen and the location of packers, plugs and seals.

D. Pumping test data will be supplied to the Engineer from all pumping tests conducted on the well. These will show dates, water levels, discharge rates and times of stopping and starting the pump.

3.10 Installation of Control and Electrical Systems (typ. of 3 wells):

A. Installation shall comply with NEC current edition and latest State of South Dakota electrical codes.

B. Poles: Poles shall be set in proper alignment and plumb using proper pole auger equipment and by workmen experienced in setting line poles. Poles shall be mechanically tamped or thoroughly hand tamped into place the full depth of set.

C. Control Panel Enclosures: Control panel enclosures shall be prewired for connections to external field wiring. Internal wiring shall be secured with nylon cable clamps and ties. Terminal blocks shall be used for all external wiring connections.

The complete installation shall be done such that all control devices, panel instruments, and terminal blocks are completely accessible without major dismantling of panel equipment.

Control panel enclosure shall be installed at the location shown on the drawings. Enclosure shall be set plumb and level. Conduit connections to enclosure shall be made with threaded conduit hubs. Enclosure finish shall be new and first used quality. Any scratched or damaged surface shall be refinished to match original finish.

D. Conduit: Exposed conduits shall be run parallel or at right angles to structure. All bends shall be made with standard conduit ells or conduit bent to not less than the same radius of screw jointed conduit fittings. All bends shall be free from dents or flattening.

Couplings and conduit unions shall be of the same material as the raceway. They shall have the conventional dimensions of the trade and shall be internally threaded with a tapered thread at each end to fit the tapered thread specified for the corresponding size conduit.

The inside and outside of all rigid steel conduit and fittings including bolts and screws shall be protected against corrosion by an even coating of zinc applied by the hot-dip process. Before galvanizing all surfaces shall be cleaned. The cleaning process shall

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leave the surface in such a condition that the zinc coating will be firmly adherent and will be smooth.

Where conduit has to be cut in the field, it shall be cut square, using a hand or power hacksaw or approved pipe cutter using knives. The use of pipe cutters with cutter wheels will not be permitted. The cut ends of the field cut conduit shall be reamed to remove any burrs and sharp edges. Where threads have to be cut on conduit, the threads shall have the same effective length and shall have the same thread dimensions and taper as specified for factory cut threads on conduit. Conduit installed in the work with threads not complying with these requirements shall be removed and replaced.

All conduit shall be cleaned prior to pulling in wire and cable by pulling a stiff wire brush of the size of the conduit through it. The cleaning shall remove all foreign matter, including water from the conduit.

Exposed conduit runs shall be supported or clamped to structure at intervals not exceeding 8 feet.

All conduit installed exposed shall be rigid steel. All conduit underground shall be PVC. PVC to GRC transitions shall be made in the horizontal run.

All exterior conduit connections to NEMA Type 4 and 3R boxes shall be made with threaded, bolt-on hubs.

E. Wiring Methods: All terminating fittings, connections, etc., shall be of a type suitable for the specific cable furnished. All fittings shall be made up tight. Make up all terminations in strict accordance with manufacturer's recommendations using special washers, nuts, etc., as required.

Splices and connections shall be made as follows:

1. Connect 8 AWG and larger wire to panels and apparatus with properly sized, solderless or compression lug connectors.
2. Connect 10 AWG and smaller wire by applying properly insulated wire nuts or pressure connectors.
3. Flashover or insulation values or joints shall be equal to that of the conductors.

F. Enclosed Circuit Breakers: Enclosed circuit breakers shall be installed in the well control panels as indicated on the drawings. Provide micarta nameplates on each conduit breaker engraved to describe circuit function.

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G. Plywood Backboard: All penetrations of the plywood backboard required for equipment mounting and the mounting of the backboard itself shall be machine drilled prior to sealing. Backboard shall be sealed with two coats of exterior house paint primer. Backboard shall be painted with two coats of Pratt and Lambert exterior acrylic latex house paint designed for use with primer. Color shall be white.

H. Lightning Surge Arrestors: Lightning surge arrestors shall be installed on the AC power bus in each well control panel in accordance with manufacturer's instruction.

3.11 Sequence of Operation: The sequence of operation of the well control shall be as follows:

When the Hand-Off-Remote switch at the well control panel is in the Remote position, the operator shall be able to start and stop the pump with the Hand-Off-Auto switch on the control panel in the VeraSun Energy Control Panel. The Hand position of the switch shall cause the control circuit to call for pump operation and the pump shall continue to operate until the switch is turned to the Off position.

Run indication shall be an indicator light controlled by an auxiliary contact on the motor starter at the well. Alarm indication shall be an indicator light controlled by a time delay relay in the control panel at the well. Interposing relays shall be used to isolate the control signals from the well field as indicated on the Drawings.

3.12 Installation and Testing: The controls shall be installed in accordance with the requirements of the National Electric code and these Specifications. The system shall be field tested prior to connecting the controls to the existing level control system. The field test shall be witnessed by the Engineer and the Owner. The Engineer and Owner shall give written notification of the proposed test schedule a minimum of five days in advance of the proposed test schedule.

3.13 Placing Pumps in Service: The Contractor shall be responsible for having an experienced person on the site to supervise the installation of the pump and accessories.

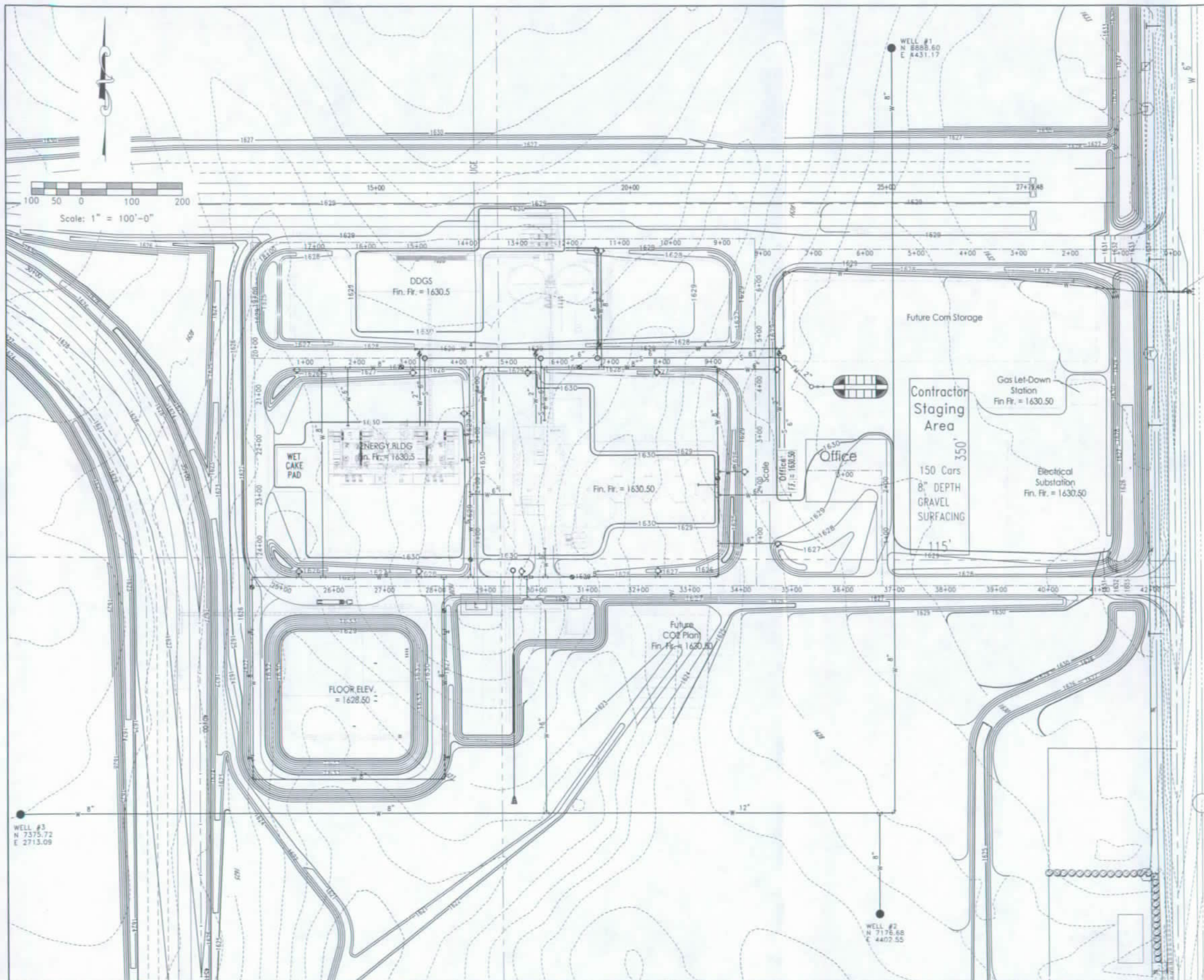
The pitless adapter unit for the submersible pump shall be furnished by the well Contractor. The Contractor shall remove the pitless adapter, set the pump in place, screw the column pipe to the adapter and set the entire unit into place sealing the adapter. All electrical connections between pump and electrical conductors shall be made at the Well to the starter and control panel.

Prior to installation of the permanent pump in the well, the pump motor, column pipe, pump bowls, tubing, probes, electrical cable and all other components to be placed in the well shall be thoroughly swabbed in a chlorine solution of not less than 50 ppm concentration for disinfection purposes.

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3.14 Site Restoration and Finish Grading: All areas disturbed in the construction of the well shall be graded to provide proper drainage and a neat appearance. The top six inches of all disturbed areas shall be topsoiled and reseeded as directed by the Engineer, which work shall not be a pay item but shall be considered as subsidiary to this section of the Specifications. The Contractor shall provide fill material as necessary, properly graded and compacted to 95% of maximum density and finished to final established elevations. The gravel surfacing shall be placed to a depth of approximately 3 inches.

END OF SECTION 2A



DRAWN BY: C.A.M.
DESIGNED BY: B.J.W.
CHECKED BY: B.J.W.

REVIEWED: _____ FOR _____
DATE: _____

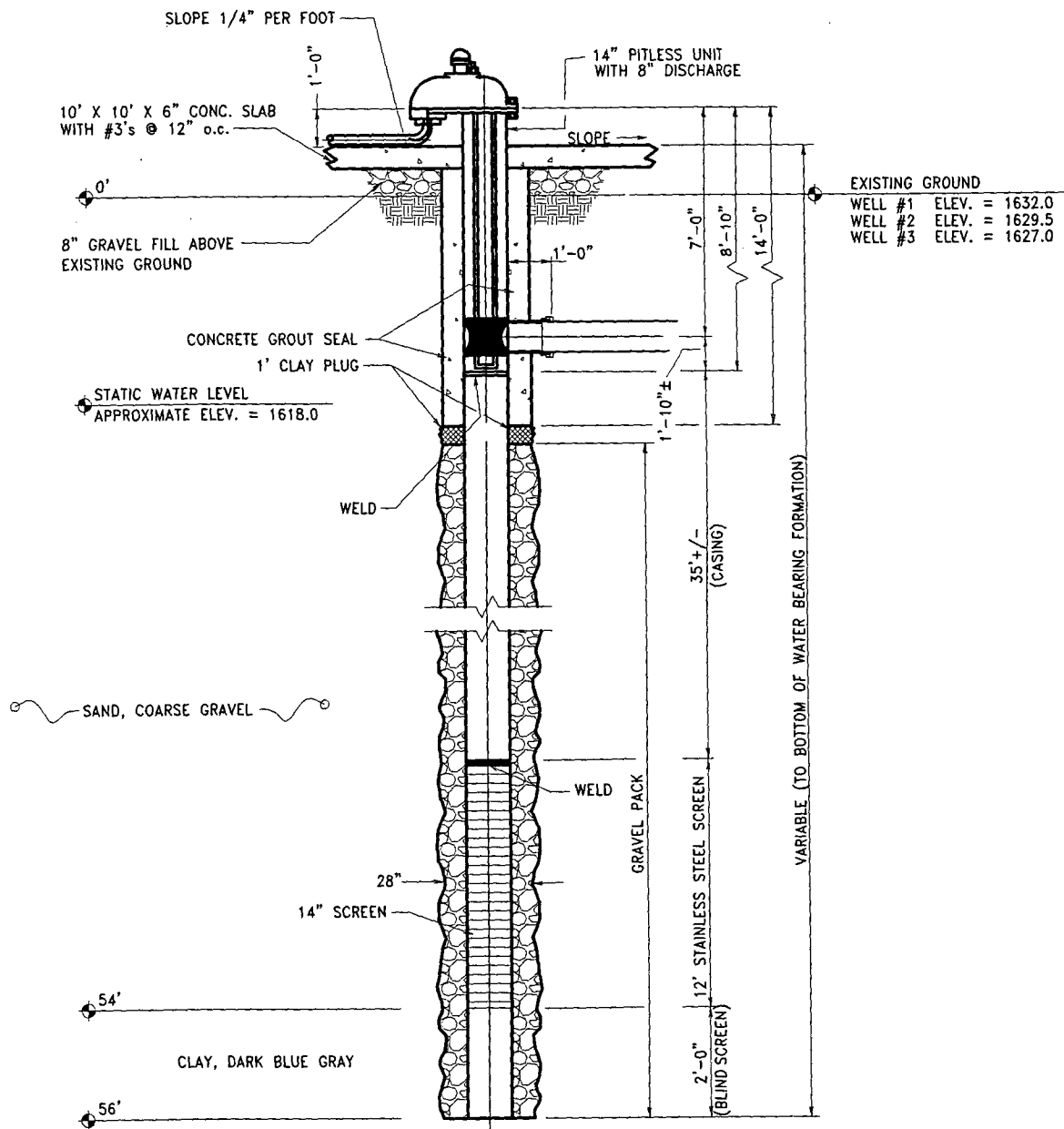
REVIEWED: _____ FOR BANNER ASSOCIATES, INC.
DATE: _____

BANNER
BANNER ASSOCIATES, INC. • CONSULTING ENGINEERS & ARCHITECTS
409 22nd Av S • P.O. Box 298 - Brookings, SD 57006 • (605)692-6342

REVISION	DATE	DESCRIPTION	BY	CK'D

Brookings County Ethanol Plant
Aurora, South Dakota
VERASUN ENERGY CORPORATION
WELL LOCATION MAP

SCALE: As Shown
JOB NO: 20167.00.03
DATE: Aug. 02
DRAWING NO: 1



NOTES:

SOILS INFORMATION TAKEN FROM S.D. GEOLOGICAL SURVEY GROUND WATER INVESTIGATION FOR CITY OF BROOKINGS. 1968

WELL CROSS SECTION - 14" WELL
SCALE: NONE

DRAWN BY: L.B.K.	JOB NO: 20167.00.03
CHECKED BY: D.C.O.	DATE: AUG. 02

WELL CROSS SECTION
ETHANOL PLANT
AURORA, SOUTH DAKOTA

BANNER
BANNER ASSOCIATES, INC. • CONSULTING ENGINEERS & ARCHITECTS
409 22nd Ave. S. • P.O. Box 298 - Brookings, SD 57006 • (605)692-6342

DRAWING NO:
2

RECEIPT
Water Rights Program
South Dakota Department of Environment and Natural Resources

417171

Pierre, May 21, 20 02

RECEIVED OF Environmental Resource Group, LLC, 1800 International Centre, 900 Second Ave S.
the following amount in fees for services rendered as provided for by law: Minneapolis, MN 55402

Fee for Application for Permit No. 4-555-3 to Appropriate Water, to construct
and to put water to beneficial use _____

575 00

Fee for Application for Permit No. _____ to Appropriate Water, for Future
Use _____

Fee to retain Future Use Permit No. _____ after period of seven years.

Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water
License No. 6505-3 _____

50 00

Fee for Filing Transfer Form _____

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

625 00

By Darlene Ebel
Chief Engineer *gm*



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

May 21, 2002

VeraSun Energy
Matt Janes
100 22nd Ave
Suite 103
Brookings SD 57006

RECEIVED

MAY 30 2002

WATER RIGHTS
PROGRAM

Dear Mr. Janes:

Thank you for submitting the *Application for a Permit to Appropriate Water* for industrial use in an ethanol production plant. In order to complete the application the following is required.

Item No. 4 of the application states the wells will be located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34-T110N-R49W. From the map, it appears that two of the wells will be located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ and one well will be located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34. Please let us know if you concur with this change on the application.

We have received the \$625 application/license filing fee. Based on the amount of water claimed, the fee will be \$650. Please submit an additional \$25.

Have test holes been drilled in the area? If so, please submit a copy of those test hole logs.

If you have any questions, please contact me.

Sincerely,

Karen Schlaak

Karen Schlaak
Water Rights Program
605 773-3352

Water Rights Program - File Documentation

NAME: VeraSun Energy

ADDRESS: Brookings

DATE: 5-28-02 **COUNTY:** BK **TELEPHONE:**

RE: Pending application

COMMENTS:

Rich from VeraSun called and stated the three wells for the application are located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$, SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 34-T110N-R49W.

They will be sending the test hole logs and the additional fee.



Karen Schlaak
Environmental Scientist

RECEIPT
Water Rights Program
South Dakota Department of Environment and Natural Resources

417175

Pierre, May 30, 20 02

RECEIVED OF Veresur, LLC, 100 22nd Avenue Suite 103, Brookings, SD 57006
the following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. 4805-3 to Appropriate Water, to construct
and to put water to beneficial use _____

25 00

Fee for Application for Permit No. _____ to Appropriate Water, for Future
Use _____

Fee to retain Future Use Permit No. _____ after period of seven years.

Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water
License No. _____

Fee for Filing Transfer Form _____

Fee for Filing Extension Request _____

Fee for _____

(Any Other Work Provided by Law)

Total

25 00

By

Mark A. White
Chief Engineer

gm

REPORT ON WATER PERMIT APPLICATION NO. 6325-3
For VeraSun Energy
June 4, 2002

Application No. 6325-3 proposes to appropriate 2.67 cfs (1200 gpm) and 1935 acre-feet annually from three wells approximately 60 feet deep located in the NE $\frac{1}{4}$ NE $\frac{1}{4}$, SE $\frac{1}{4}$ NE $\frac{1}{4}$ and SW $\frac{1}{4}$ NE $\frac{1}{4}$ of section 34, T110N R49W in Brookings County. The water is for industrial use in an ethanol production plant.

AQUIFER – BIG SIOUX AURORA (BS-A)

The Big Sioux Aurora is a surficial outwash (sand and gravel) which is under water table conditions in this area. The aquifer underlies 39,300 acres and contains an estimated 165,060 acre-feet of recoverable water in storage (Hedges, 1982). The aquifer blends into the Big Sioux Brookings aquifer to the west and is also hydraulically connected to the Big Sioux River. The USGS mapped the entire Big Sioux aquifer in Brookings and Kingsbury counties and reported an extent of 540 square miles and an estimated volume of water in storage of 2.0 million acre-feet (Hamilton, 1989). Nearly all of this aquifer storage is located in Brookings County. The Big Sioux Aurora is simply a management unit of the larger Big Sioux aquifer. The Big Sioux Aurora aquifer extends into Minnesota to the east and into Moody County to the southeast. Locally the aquifer is also hydraulically connected to Medary and Deer Creek in this immediate area. Ground water movement is from northeast to southwest across the area of this application (Hammond, 1989).

Test hole and driller's logs filed with the application indicate the aquifer is present from near the land surface to a depth of about 50 feet. The reported water level varied from about six to nine feet below land surface. Actual historical water level information is available for the immediate area and is shown by the hydrograph for observation well BG-89A. A hydrograph for this observation well is included with this report (Water Rights, 2002). The Water Rights Program also measures five other observation wells within a two-mile radius of this application. Water levels for these wells respond similarly to climatic conditions, that is, rising during wet years (recharge) and gradually declining during dry years. The effect of pumping mostly by area irrigation wells is not obvious from looking at the water level record.

Recharge to the aquifer is estimated to range from about three inches to over nine inches per year. Specifically for the Brookings County area, an estimate of 6.57 inches per year to the water table portion of the aquifer can be used (Koch, 1980). This results in an average recharge volume of about 21,500 acre-feet per year. The best estimate of water use for the Big Sioux Aurora aquifer in Brookings County is about 4,900 acre-feet for irrigation and 2,470 acre-feet for the City of Brookings which totals to a water use of 7,370 acre-feet annually. The irrigation estimate is for 1988 that is the largest pumping volume ever reported and the City of Brookings use is for year 2001. Also, the City of Brookings has 2,425 acre-feet remaining in Future Use Permit No. 1598-3 from the Big Sioux Aurora aquifer that must be counted. In summary, the difference between the

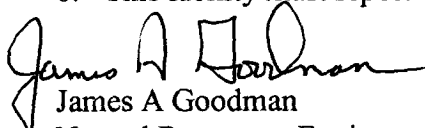
estimated amount of recharge to the aquifer and the amount of water pumped plus the amount of water remaining under future use permit is about 11,700 acre-feet. Obviously, water is available for appropriation under this hydrologic budget scenario for the aquifer.

REVIEW OF EXISTING WATER PERMITS/RIGHTS

There are two existing Water Rights on the property mapped as VeraSun first addition and VeraSun second addition. These are Water Rights Nos. 1109-3 and 3332-3. Combined these rights authorize a diversion rate of 3.05 cfs for irrigation of 270 acres. Historically, it appears that the maximum water use for these two rights is about 350 acre-feet. The proposed wells are located within the same quarter section as the well for Water Right No. 1109-3. The nearest proposed well (#2) to the irrigation well under Water Right No. 1109-3 is about 600 feet to the east. It appears from the application that these two Water Rights are to be abandoned. There are other Water Rights in the area. Two irrigation Water Right Nos. 3206-3 and 2328-3 are located in adjacent quarters to the north and northeast of this application. Two of the wells for these rights are located about 1900 feet from proposed well #1. The two other proposed wells are about ½ mile from the nearest irrigation well. There is an existing Water Right No. 1952-3 for the Town of Aurora that is located about ½ mile south of proposed wells #2 and #3. Interference is not a concern. Drawdown created by pumping should not be significant at the distance between wells.

CONCLUSIONS

1. Water is available from the Big Sioux Aurora aquifer.
2. The aquifer is under water table conditions. Drawdown created by pumping will not be significant at the distances between wells. Interference is not a concern.
3. Existing development in the area for irrigation and municipal use does not appear to have affected water levels in the aquifer. This is shown by the observation well data.
4. The wells authorized by this application must be constructed in accordance with SD Well Construction Standards.
5. Any wells or test holes that have been abandoned must be plugged pursuant to SD Well Construction Standards.
6. This facility must report water use annually to the Water Rights Program.


James A Goodman
Natural Resources Engineer

BIBLIOGRAPHY

Hamilton, L.J., 1989, Water Resources of Brookings and Kingsbury Counties, South Dakota, WRI 88-4185, USGS, Huron, SD, 57350.

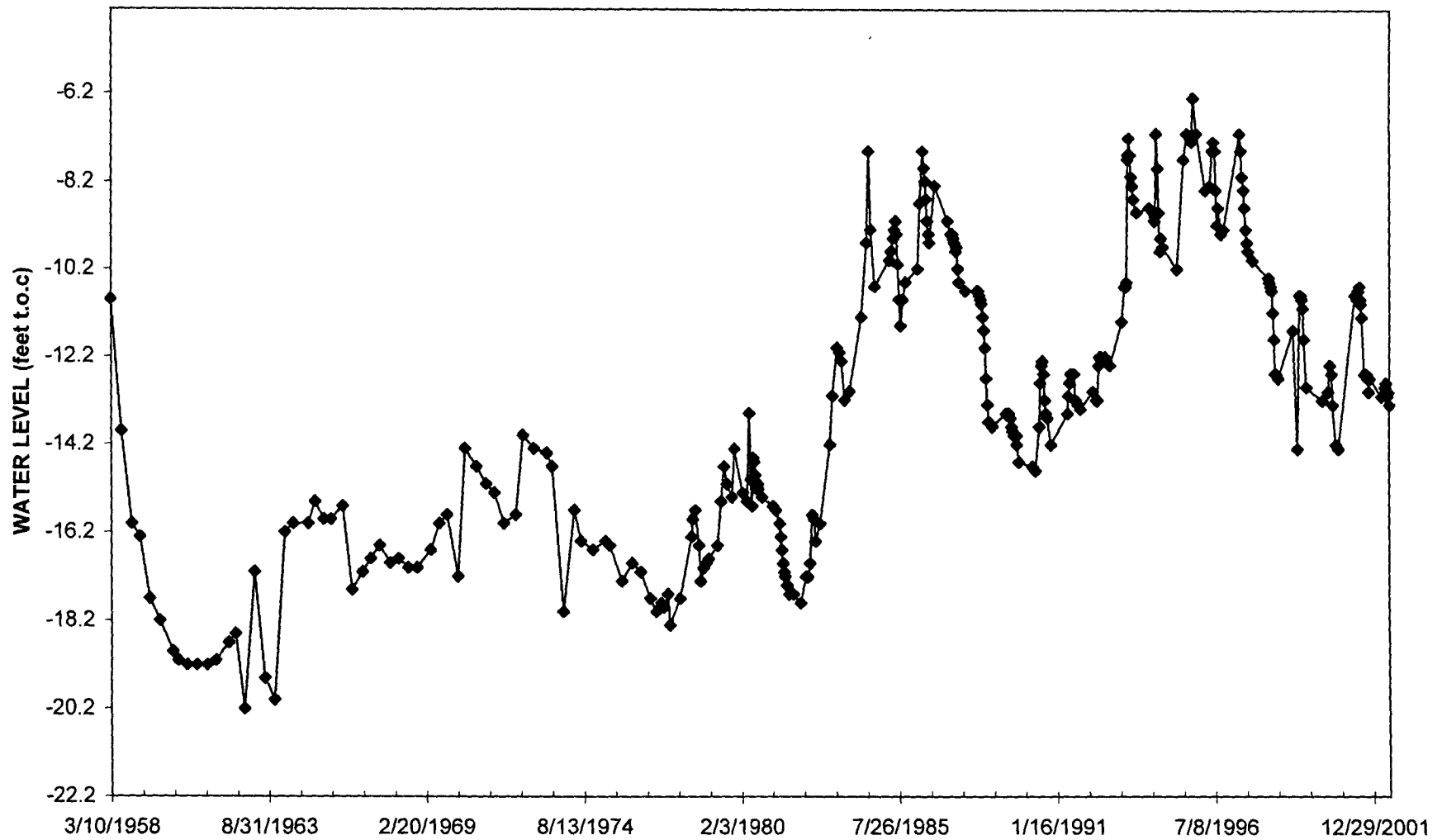
Hammond, P.D., 1989, Investigation of the Ground-Water Quality Near Aurora, South Dakota, Open File Report 57-UR, SDGS, Vermillion, SD, 57069.

Hedges, L.S., 1982, Evaluation of Ground-Water Resources Eastern SD and Upper Big Sioux River SD and Iowa, for US Army Corps of Engineers, SDGS, Vermillion, SD, 57069.

Koch, N.C., 1980, Appraisal of the Water Resources of the Big Sioux Aquifer, Brookings, Deuel, and Hamlin Counties, South Dakota, WRI 80-100, USGS, Huron, SD, 57350.

Water Rights, 2002, Unpublished Observation Well Data for Brookings County, SD DENR, DES, Water Rights Program, Pierre, SD, 57501.

**WATER RIGHTS' OBSERVATION WELL
BG-89A**





**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

**RECOMMENDATION OF CHIEF ENGINEER FOR WATER PERMIT
APPLICATION NO. 6325-3, VeraSun Energy**

Pursuant to SDCL 46-2A-2, the following is the recommendation of the Chief Engineer, Water Rights Program, Department of Environment and Natural Resources concerning Water Permit Application No. 6325-3, VeraSun Energy, c/o Matt Janes, 100 22nd Avenue, Suite 103, Brookings SD 57006.

The Chief Engineer is recommending APPROVAL of Application No. 6325-3 because 1) the proposed diversion can be developed without unlawful impairment of existing rights, 2) the proposed use is a beneficial use and 3) it is in the public interest with the following qualifications 4) there is a reasonable probability that unappropriated water is available for the proposed use:

1. The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
2. The wells authorized by Permit No. 6325-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28.
3. VeraSun Energy shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux:Aurora Aquifer.

See report on application for additional information.

Garland Erbele, Chief Engineer
August 9, 2002



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

NOTE: TO BE SURE OF PUBLICATION ON
THE CORRECT DATES, CONTACT
THE NEWSPAPER RIGHT AWAY.

August 13, 2002

Vera Sun Energy
% Matt Janes
100 Twenty-Second Ave, Suite 103
Brookings SD 57006

Dear Mr. Janes:

Water Permit Application No. 6325-3 for industrial use has been examined and found to comply with the South Dakota Water Laws and applicable rules. A notice of hearing has been sent to the Publisher of the Brookings Register printed at Brookings, SD (Ph # 605-692-6271). You will need to contact the newspaper and authorize publication of this notice. For your information, a copy of the notice, the recommendation of the Chief Engineer and a report on the application are enclosed. Please review the notice prior to publication and notify this office, if you have any corrections or questions.

Be sure to contact the above newspaper to authorize publication of your Notice of Hearing and to arrange for payment. Early contact with the paper can eliminate delays. Upon receiving authorization, the publisher has been instructed to publish your notice once each week for two consecutive weeks with the last publication to occur twenty days before the board meeting. The newspaper has also been instructed to send us the Proof of Publication. We must receive Proof of Publication before action can be taken on the application.

Sincerely,


Eric Gronlund
Natural Resources Engineer
(605) 773-3352

enclosures

NOTE: If you plan to contest any part of the Chief Engineer's recommendation, you must file a petition pursuant to the procedures outlined in the attached notice of hearing. The Water Management Board will then consider your concerns during a hearing on the application.



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 13, 2002

Brookings Register
PO Box 177
Brookings, SD 57006-0177

ATTENTION: Legal Public Notice

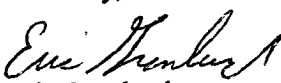
Enclosed is a Notice of Hearing on Application No. 6325-3 to Appropriate Water to be published twice. Please publish the first notice on August 21, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is VeraSun Energy, %Matt Janes, 100 Twenty-Second Ave, Suite 103, Brookings, SD 57006 (Ph # 605-696-7205).

Please send the Water Rights Program the first publication immediately. The publication is checked for accuracy so any corrections can be made in the second publication. You may use the form below or fax a copy of the first publication. Any fax should be sent to the attention of Karen Schlaak at (605) 773-4068. Publication errors can invalidate the public notice.

After the second publication, **please send us an affidavit or use the enclosed Proof of Publication form.** The applicant pays the cost of publication, but the Water Rights Program records require an affidavit or Proof of Publication. Delays in receiving the affidavit can be costly to the applicant.

Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 6325-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of August 13, 2002 enclosing Notice of Hearing to Appropriate Water by Application No. 6325-3 which was first published in our issue of _____. **ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.**

Name

Newspaper

Instruction to Newspaper - Publish first Notice on August 21, 2002 with the second publication 7 days later. The applicant is responsible for payment.

NOTICE OF APPLICATION NO. 6325-3 to Appropriate Water

Notice is given that VeraSun Energy, 100 22nd Ave, Suite 103, Brookings SD 57006 has filed an application for a water permit to appropriate 2.67 cubic feet of water per second (1935 acre-feet annually) from three wells (Big Sioux: Aurora Aquifer) 60 feet deep located in the NE ¼ NE ¼, SE ¼ NE ¼ & SW ¼ NE ¼ Section 34-T110N-R49W. The water is for industrial use in an ethanol production plant.

Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6325-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352)" and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 13, 2002. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 10:00 A.M. September 25, 2002 in the Matthew Training Center, Foss Building, 523 E Capitol Ave., Pierre SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The September 25, 2002 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by September 13, 2002.

Any hearing may be an adversarial proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and may present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by September 13, 2002, at the above Water Rights Program address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-30.2, 46-5-30.4, 46-5-31; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26 and Board Rules ARSD 74:02:01:01 thru 74:02:01:15. Steven M. Pirner, Secretary, Department of Environment and Natural Resources.

WATER RIGHT PROGRAM
SOUTH DAKOTA DEPARTMENT OF
ENVIRONMENT AND NATURAL RESOURCES

FACSIMILE TRANSMITTAL SHEET

TO: Kristin	FROM: Eric Gronlund
COMPANY: Brookings Register	DATE: August 23, 2002
FAX NUMBER: 692-2979	TOTAL NO. OF PAGES INCLUDING COVER: 3
PHONE NUMBER:	SENDER'S TELEPHONE NUMBER: (605) 773-3352
RE: VeraSun Water Permit Application Public Notice	SENDER'S FAX NUMBER: (605) 773-4068

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ AS YOU REQUESTED

NOTES/COMMENTS:

Kristin

Here is the notice for the VeraSun water permit application that we discussed on the telephone. Please publish on August 28 and September 4, 2002.

The first transmittal of the August 28th run can be faxed to 773-4068 so we can error proof it.

Thanks for you help.

Eric Gronlund



DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 23, 2002

Brookings Register
PO Box 177
Brookings, SD 57006-0177

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Enclosed is a Notice of Hearing on Application No. 6325-3 to Appropriate Water to be published twice. Please publish the first notice on August 28, 2002 with the second publication 7 days later.

The applicant must verify to you that the notice is to be published, before you make the first publication. **Please BILL the APPLICANT for the cost of publication.** The APPLICANT is VeraSun Energy, %Matt Janes, 100 Twenty-Second Ave, Suite 103, Brookings, SD 57006 (Ph # 605-696-7205).

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Sincerely,


Eric Gronlund
Natural Resources Engineer
605 773-3352

enclosures

-----CUT HERE-----

No. 6325-3

TO: Eric Gronlund
Water Rights Program
Joe Foss Building
Pierre SD 57501-3181

Date _____

We are in receipt of your letter of August 23, 2002 enclosing Notice of Hearing to Appropriate Water by Application No. 6325-3 which was first published in our issue of _____. ENCLOSED IS A COPY OF THIS FIRST PUBLICATION.

Name

Newspaper

Affidavit of Publication

State of South Dakota

ss

County of Brookings

Michelle Dorn of said county, first duly sworn, on oath, says: That she is the office clerk of THE BROOKINGS REGISTER, a daily newspaper, printed and published in the City of Brookings, in said County of Brookings, and State of South Dakota; that she has full and personal knowledge of the facts herein stated; that said newspaper is a legal newspaper and has a bona fide circulation of at least two hundred copies of each issue daily; that said newspaper has been published within the said County of Brookings and State of South Dakota, for more than one year prior to the first publication of Exhibit "A," hereto attached and herein mentioned, and was and is printed in the office maintained at said place of publication; and that the

Legal #892 Water Permit

Brookings and State of South Dakota, for more than one a printed copy of which, taken from the paper in which the same was published, is hereto attached marked Exhibit "A," and is made a part of this affidavit, was published in said newspaper for _____ 2 times, to-wit:

August 28, 2002

September 4, 2002

said Exhibit "A" inures to the sole benefit to the publishers of said newspaper; that no agreement or understanding for the division thereof has been made with any other person, and that no part thereof has been agreed to be paid to any person whomsoever; that the fees charged for the publication thereof are:

Sixty-one dollars and thirty-six cents \$61.36

Subscribed and sworn to before me this

4 day of

September

2002.

Notary Public in and for the County of Brookings, South Dakota.
My Commission expires April 27, 2006

Any hearing may be an adversarial proceeding. Any person filing a petition and/or the applicant have the right to be represented by a lawyer and my present evidence or cross-examine witnesses according to SDCL 1-26. These and other due process rights will be forfeited if not exercised. Decisions of the Board may be appealed to the Circuit Court and State Supreme Court as provided by law. Contact Eric Gronlund by September 13, 2002, at the above Water Rights Program address to request copies of information pertaining to this application, to assure access to the hearing by the handicapped or to obtain an interpreter for the hearing impaired.

This application is made pursuant to SDCL 46-1-1 thru 46-1-9, 46-1-12 thru 46-1-16; 46-2-3.1, 46-2-9, 46-2-11, 46-2-13, 46-2-17; 46-2A-1 thru 46-2A-10, 46-2A-12, 46-2A-14, 46-2A-15, 46-2A-20, 46-2A-21; 46-5-1 thru 46-5-11, 46-5-13 thru 46-5-15, 46-5-24, 46-5-25, 46-5-3 0.2, 46-5-3 0.4, 46-5-3 1; 46-6-3, 46-6-3.1, 46-6-6.1, 46-6-10, 46-6-13, 46-6-14, 46-6-26 and Board Rules ARSD 74:02:01:01 thru 74:02:01:15.

Steven M. Pirner,
Secretary,
Department of
Environment and
Natural Resources

Legal 892, 2x, 8/28, 9/4

NOTICE OF
APPLICATION
NO. 6325-3 to Appropriate
Water

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Pursuant to SDCL 46-2A-2, the Chief Engineer recommends APPROVAL of Application No. 6325-3 because 1) unappropriated water is available, 2) existing rights will not be unlawfully impaired, 3) it is a beneficial use of water, and 4) it is in the public interest.

Any person interested in opposing or supporting this application must file a written petition with BOTH the applicant and Chief Engineer. The applicant must also file a petition if opposed to the Chief Engineer's recommendation. The Chief Engineer's address is "Water Rights Program, Foss Building, 523 E Capitol, Pierre SD 57501 (605 773-3352) and the applicant's mailing address is given above. A petition filed by either an interested person or the applicant must be filed by September 13, 2002. The petition may be informal, but must include a statement describing the petitioner's interest in the application, the petitioner's reasons for opposing or supporting the application, and the signature and mailing address of the petitioner or the petitioner's legal counsel, if legal counsel is obtained.

The Water Management Board will consider this application at 10:00 A.M. September 25, 2002 in the Matthew Training Center, Foss Building, 523 E Capitol Ave., Pierre SD. The Chief Engineer's recommendation is not final or binding upon the Board. The Board is authorized to: 1) approve, 2) approve with qualifications, 3) defer, or 4) deny this application based on the facts presented at the public hearing. The September 25, 2002 hearing date will be automatically delayed for at least 20 days upon written request to the Chief Engineer from the applicant or any interested person opposing the application. The request for an automatic delay must be filed by September 13, 2002.

RECEIVED

SEP 06 2002

WATER RIGHTS
PROGRAM

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**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 13, 2002

Lawrence DeGroot
47604 213th Street
Aurora SD 57002-6532

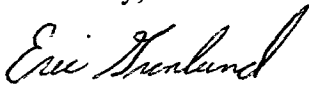
Dear Mr. DeGroot:

Enclosed is a copy of the report, recommendation and public notice on Water Permit Application No. 6325-3 filed by VeraSun Energy. This application is for wells to supply an ethanol plant near Aurora. The notice will be published in the Brookings Register on August 21 and 28, 2002. The notice schedules a September 25, 2002, hearing before the Water Management Board in Pierre. If you want to participate in the hearing you must submit a written petition by September 13, 2002 as set forth in the notice.

This information is being sent to you because of the interest you expressed in being notified when the application is public noticed and scheduled for hearing.

Please contact Jim Goodman or myself if you have any questions regarding this application or the permitting process.

Sincerely,


Eric Gronlund
Water Rights Program
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 13, 2002

Dave Rusten
826 32nd Avenue
Brookings SD 57006

Dear Mr. Rusten:

Enclosed is a copy of the report, recommendation and public notice on Water Permit Application No. 6325-3 filed by VeraSun Energy. This application is for wells to supply an ethanol plant near Aurora. The notice will be published in the Brookings Register on August 21 and 28, 2002. The notice schedules a September 25, 2002, hearing before the Water Management Board in Pierre. If you want to participate in the hearing you must submit a written petition by September 13, 2002 as set forth in the notice.

This information is being sent to you because of the interest you expressed in being notified when the application is public noticed and scheduled for hearing.

Please contact Jim Goodman or myself if you have any questions regarding this application or the permitting process.

Sincerely,

Eric Gronlund
Water Rights Program
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

August 13, 2002

J L Anderson
212286 475th Avenue
Aurora SD 57002-6543

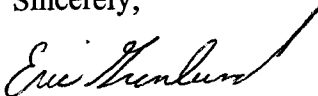
Dear Mr. Anderson:

Enclosed is a copy of the report, recommendation and public notice on Water Permit Application No. 6325-3 filed by VeraSun Energy. This application is for wells to supply an ethanol plant near Aurora. The notice will be published in the Brookings Register on August 21 and 28, 2002. The notice schedules a September 25, 2002, hearing before the Water Management Board in Pierre. If you want to participate in the hearing you must submit a written petition by September 13, 2002 as set forth in the notice.

This information is being sent to you because of the interest you expressed in being notified when the application is public noticed and scheduled for hearing.

Please contact Jim Goodman or myself if you have any questions regarding this application or the permitting process.

Sincerely,


Eric Gronlund
Water Rights Program
(605) 773-3352

enclosures



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

OCT 18 2002

VeraSun Energy
% Matt Janes
100 22nd Ave Suite 103
Brookings SD 57006

Dear Mr. Janes:

Enclosed is Water Permit No. 6325-3 authorizing construction of your water diversion system and beneficial use of the water, not exceeding the limits as specified in the Water Permit.

Form 10, *Notice of Completion of Works and Application of Water to Beneficial Use*, is enclosed. Please return this completed form after you have finished the system and have put the water to beneficial use. An investigation can then be scheduled so the water license may be issued, thus completing the acquisition of a water right.

An informational sheet *Common Water Right Questions?* is also enclosed. This sheet is intended to answer some of the questions associated with obtaining and keeping a water right.

Sincerely,

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

**NOTICE OF COMPLETION OF WORKS AND
APPLICATION OF WATER TO BENEFICIAL USE**

Date October 16, 2003

TO: Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

RECEIVED
OCT 20 2003
WATER RIGHTS
PROGRAM

FROM: VeraSun Energy Corporation
(name)
One VeraSun Place
(address)
Aurora, SD 57002
(city, state, zip)

605-693-6800
(phone)

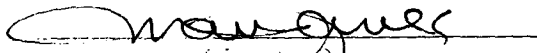
I have completed the construction of the water use system and I have put the water to beneficial use to the maximum extent it is going to be used.

Water Permit No. 6325-3 states that the water use system is to be constructed by
September 25, 2007 and water is to be put to beneficial use by September 25, 2011
(date) (date)

The water use system was completed on October 16, 2003
(date)

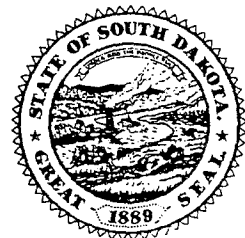
Applying the water to beneficial use was completed on October 16, 2003
(date)

You may schedule an investigation so that the water license may be issued.


(signature)

Matthew Janes
VeraSun Energy Corporation

7-98



6325-3 07-92

Date: May 27, 2003

SOUTH DAKOTA WATER WELL COMPLETION REPORT

6325-3 07-92

Location NE 1/4 NE 1/4 Sec 27 Twp 110 Rg 49
County

Brookings

Please mark well location with an "X"

W

E

Well Completion Date

4-29-03

1 Mile

LOCATION:

Distance from nearest potential pollution source (septic tank, abandoned well, feed lot, etc.)? 500 ft. from septic (identify source).

PROPOSED USE:

☐ Domestic/Stock ☐ Municipal ☐ Business ☐ Test Holes
☐ Irrigation ☒ Industrial ☐ Institutional ☐ Monitoring well

METHOD OF DRILLING:

Rotary

CASING DATA: ☒ Steel ☐ Plastic ☒ OtherIf other describe stainless steel

PIPEWEIGHT	DIAMETER	FROM	TO	HOLE DIAMETER
54.57 LB/FT	14 IN	0 FT	42 FT	28 IN
ss screen	14 IN	42 FT	57 FT	28 IN
_____ LB/FT	_____ IN	_____ FT	_____ FT	_____ IN

GROUTING DATA

Grout Type	No. of Sacks	Grout Weight	From	To
Portland	95	_____ lb./gal	0 ft	32 ft
_____	_____	_____ lb./gal	_____ ft	_____ ft

Describe grouting procedure tremie pipeSCREEN: ☐ Perforated pipe ☒ ManufacturedDiameter 14 IN Length 15 FEETMaterial 304 stainless steelSlot Size 60 Set From 42 Feet to 57 FeetOther information gravel packedWAS A PACKER OR SEAL USED? ☒ YES ☐ NOIf so, what material? bentoniteDescribe packer(s) and location? 32' to 35'

DISINFECTION: Was well disinfected upon completion?

☒ YES, How: HTH

Laboratory sent to for water quality analysis

Pierre, SD

Well Owner: VeraSun Energy

Business Name: _____

Address: 100 22nd Ave, Suite 103Brookings, SD 57006

WELL LOG:

FORMATION	DEPTH	
	FROM	TO
Topsoil	0	5
Sand gravel	5	57

STATIC WATER LEVEL 8 Feet

If flowing: closed in pressure _____ PSI

GPM flow _____ through _____ inch pipe

Controlled by ☐ Valve ☐ Reducers ☐ Other _____

Reduced Flowrate _____ GPM

Can well be completely shut in? _____

WELL TEST DATA:

☒ Pumped Describe: submersible pump
☐ Bailed _____
☐ Other _____

Pumping Level Below Land Surface

38 ft. After 10 Hrs. pumped 750 GPM

_____ ft. After _____ Hrs. pumped _____ GPM

If pump installed, pump rate _____ GPM

REMARKS

RECEIVED

JAN 12 2004

WATER RIGHTS
PROGRAMThis well was drilled under license # 94

And this report is true and accurate.

Drilling firm Huron Drilling Inc.

Signature of License Representative: _____

Signature of Well Owner or Equitable Property Holder: _____

Date: May 12, 2003

6325-3

Date: May 12, 2003

0325-3



VeraSun AURORA

America's Source for Renewable Energy

One VeraSun Place
Aurora, SD 57002
T 605-693-6800
F 605-693-6850
www.verasun.com

October 31, 2005

Mr. Garland Erbele
South Dakota Department of Environment and Natural Resources
Water Rights Program
Joe Foss Building
523 East Capitol
Pierre, South Dakota 57501-3182

RECEIVED
OCT 31 2005
WATER RIGHTS
PROGRAM

Re: Company Name Change

Dear Garland,

VeraSun Aurora Corporation (VeraSun) is submitting this notification to the South Dakota Department of Environment and Natural Resources Water Rights Program to implement a company name change.

Company Old Name and Address:

VeraSun Energy Corporation
100 22nd Ave, Suite 103
Brookings, SD 57006

Company New Name and Address:

VeraSun Aurora Corporation
One VeraSun Place
Aurora, SD 57002

If you have any questions regarding the name and address change, please contact me at the number listed below.

Sincerely,

Holly Kolbach
Safety & Environmental Coordinator
VeraSun Aurora Corporation
One VeraSun Place
Aurora, South Dakota 57002
605-693-6840
holly@verasun.com

RECEIVED

NOV - 9 2005

WATER RIGHTS
PROGRAM

NOTICE OF TRANSFER OF OWNERSHIP

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

No. 6325-3

Date: November 1, 2005

I/We request that Water Permit No. 6325-3

formerly owned by: VeraSun Energy Corporation

be transferred to: (name & address) VeraSun Aurora Corporation

One VeraSun Place, Aurora SD 57002

Telephone No. 605 693-6840

Title to the following described land(s)/property has been transferred as described above:

Diversion point locations: three wells in the NE ¼ NE1/4, SE ¼ NE ¼ & SW ¼ NE ¼ Section 34,

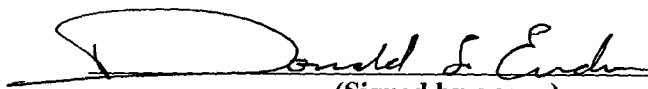
T110N, R49W

I/We understand that the validity of Water Permit No. 6325-3 has not been determined by this transfer action. If I/We have any questions on validity, I/We understand that only the Water Management Board has the authority to determine if a water permit/right is valid (see note).

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is required to cover the filing fees as required under SDCL 46-2-13. This form must be signed by the owner.

I/We Donald Endres, the new owner, certify that the above information is true and correct.


(Signed by owner)

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date November 9, 20 05

RECEIVED OF VeraSun Aurora Corp, One VeraSun Place, Aurora SD 57002

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	2	50
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form <u>6325-3</u>		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____		
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	2.50

No.

002000

By

Marlana Erbeley

Chief Engineer

KS



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

November 10, 2005

6325-3

Donald Endres
VeraSun Aurora Corporation
One VeraSun Place
Aurora SD 57002

Dear Mr. Endres:

I am writing to acknowledge receipt of the ownership/name change for Water Permit No. 6325-3. The transfer has been completed. The water permit formerly listed in the name of VeraSun Energy Corporation is now listed in the name of VeraSun Aurora Corporation.

Enclosed is your Receipt No. 002000 in the amount of \$2.50. If I can answer any questions for you, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

enclosure

RECEIVED

JUN 22 2009

WATER RIGHTS
PROGRAM

June 18, 2009

Garland Erbele
Chief Engineer
Water Rights Program, DENR
523 Capitol
Pierre, SD 57501-3181

Subject: VeraSun Aurora Corporation Change of Ownership Request

Mr. Erbele:

On April 1, 2009, Valero Renewable Fuels Company, LLC (Valero) successfully acquired some of the former VeraSun Energy Corporation (VeraSun) assets, including the plant in Aurora, South Dakota. Valero hereby requests a permit amendment to Water Permit #6325-3 to document the change of ownership.

Valero requests that all references to VeraSun Aurora Corporation be replaced with Valero Renewable Fuels Company, LLC. A Notice of Transfer of Ownership form is attached to this letter.

Please feel free to contact me at (605) 693-6811 if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink that reads 'Joel R.' with a stylized flourish at the end.

Joel Reiersen
Plant Manager
Valero Renewable Fuels Company, LLC

c: Tim George, P.E.; Executive Director, Environmental Liability Management Group

Enclosed: SD Form 0495 V1 – Notice of Transfer of Ownership

SD EForm - 0495 V1 NOTICE OF TRANSFER OF OWNERSHIP

RECEIVED

JUN 22 2009

WATER RIGHTS
PROGRAM

To: Chief Engineer
Water Rights Program, DENR
523 E. Capitol
Pierre, SD 57501-3181

Water Right/Permit No. 6325-3

Date: 6/16/2009

I/We request that Water Right/Permit No. 6325-3 formerly owned by:
VeraSun Energy Corporation be transferred to:

New Owner Name: Valero Renewable Fuels Company, LLC

Address: One Valero Way

City, State, Zip San Antonio TX 48249-1616 Telephone No. (210) 345-3633

Title to the following described land(s)/property has been transferred as described above:

The facility is located at One Valero Place, Aurora, SD 57002-6502

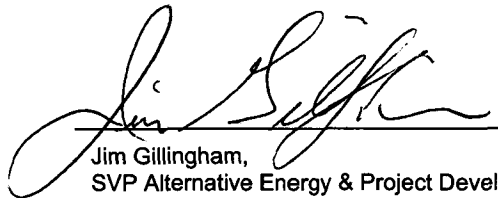
Water is appropriated from three wells (Big Sioux: Aurora Aquifer), each 60 feet deep, located in the NE1/4 NE1/4, SE1/4 NE1/4, & SW1/4 NE1/4 of Section 34, Township 110 North, Range 49 West

☒ I understand that the validity of Water Right/Permit No. 6325-3 has not been determined by this transfer action. If I have any questions on validity, I understand that only the Water Management Board has the authority to determine if a water right/permit is valid (see note below.)

You are requested to file this "Notice of Transfer" in the appropriate file with the Water Rights Program, as evidence of the change of ownership.

A fee of Two Dollars and Fifty Cents (\$2.50) is included to cover the filing fee as required by SDCL 46-2-13.

Valero Renewable Fuels Company, LLC, the new owner, certify that the above information is true and correct.

 6/17/09
Jim Gillingham,
SVP Alternative Energy & Project Development
on behalf of Valero Renewable Fuels Company, LLC

NOTE: Water permits may be cancelled for nonconstruction after the five year construction period has expired. Once a water permit is developed and the water used, the permit becomes a right. A water right may be lost for three reasons:

1. Abandonment - no intent to use water and use is abandoned.
2. Forfeiture - no use of water for three year period without legal excuse.
3. For a third violation of a condition of a water permit/right.

RECEIPT

WATER RIGHTS PROGRAM

South Dakota Department of Environment and Natural Resources

Date 6/22, 2009

RECEIVED OF Valero Renewable Fuels Co PO Box 696000 SAN ANTONIO TX 78269

The following amount in fees for services rendered as provided for by law:

Fee for Application for Permit No. _____ to Appropriate Water, to construct and to put water to beneficial use	2	50
Fee for Application for Permit No. _____ to Appropriate Water for Future use		
Fee to retain Future Use Permit No. _____ after period of seven years.		
Fee for Inspecting Constructed Works, confirming beneficial use and issuing Water License No. _____		
Fee for Filing Transfer Form <u>6325-3</u>		
Fee for _____		
Fee for Issuing New Well Driller's License No. _____ for C.Y. _____		
Fee for Renewal of Well Driller's License No. _____ for C.Y. _____		
Fee for Issuing Well Pump Installer's License No. _____ for C.Y. _____	2	50
Fee for Renewal of Well Pump Installer's License No. _____ for C.Y. _____		
(Any Other Work Provided by Law)	TOTAL	

No. 04102

By Michael Erbe
Chief Engineer



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

PMB 2020
JOE FOSS BUILDING
523 EAST CAPITOL
PIERRE, SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

June 23, 2009

6325-3

Joel Reiersen, Plant Mgr
Valero Renewable Fuels Company LLC
One Valero Pl
Aurora SD 57002-6502

Dear Mr. Reiersen:

I am writing to acknowledge receipt of the "Notice of Transfer of Ownership" form and filing fee you submitted for Water Permit No. 6325-3.

The ownership change has been completed. The water permit formerly listed in the name of VeraSun Energy Corporation is now held by:

- Valero Renewable Fuels Company LLC
One Valero Way
San Antonio TX 48249-1616

Routine correspondence will be continue to be directed to the plant address in Aurora SD. Enclosed is Receipt No. 04162 in the amount of \$2.50 which was paid for filing the ownership change. If you have any questions, please contact me.

Sincerely,

Genny McMath
Environmental Scientist
Water Rights Program
(605) 773-3352
email: genny.mcmath@state.sd.us

enclosure

Permit No. 6325-3
Sioux River - Water District

Report of Examination of Works and/or Application of Water to Beneficial Use

TO: Chief Engineer, Water Rights Program, DENR, Foss Bldg., Pierre, SD 57501

I have this day, April 2, 2008, made a thorough examination of the water use system constructed by Valero Renewable Fuels Co. of One Valero Way, San Antonio, TX 48249 holder of Permit No. 6325-3, bearing the priority of May 21, 2002 authorizing the diversion of 2.67 cu. ft. per second of the waters of the Big Sioux: Aurora Aquifer for Industrial purposes, in Brookings County.

Inspection contact & relationship **Joel Reiersen, Plant Mgr.**
to permit holder, if applicable:

A. Works used to divert the water:

Well Information:

- 1) Well Drilling Firm: Huron Drilling Inc.
- 2) No. of Wells 3
- 3) Depth(s) Well 1: 57, Well 2: 58, Well 3: 57 feet
- 4) Well log is available Y

Casing:

- 1) Diameter 14 inches
- 2) Length Well 1: 42, Well 2: 43, Well 3: 42 feet
- 3) Type Stainless Steel

Screen:

- 1) Type Stainless Steel
- 2) Length Well 1: 15, Well 2: 15, Well 3: 15 feet
- 3) Static water level Well 1: 8, Well 2: 8, Well 3: 9 feet

Pump:

- 1) Make (3) Grundfos
- 2) Model 625S250-1
- 3) Capacity 625 GPM

Motor:

- 1) Make **(3) Franklin Electric Submersible**
- 2) Model No. **2366159020**
- 3) Horsepower rating **25** hp

B. Compliance with Permit Requirements:

- 1) Permit qualifications being abided by **Y**
- 2) Irrigation Questionnaires checked to determine if permit owner started irrigation by the end of construction period **NA**
- 3) Exceptions to compliance are: **None**

The system is in **Good** condition with the point(s) of diversion located as follows:

Well 1: Approximately 270 feet south and 520 feet west of the NE corner of Section 34-T110N-R49W (N 44.29587, W -96.68957) (NE ¼ NE ¼)

Well 2: Approximately 2010 feet south and 365 feet west of the NE corner of Section 34-T110N-R49W (N 44.29113, W -96.6890) (SE ¼ NE ¼)

Well 3: Approximately 1665 feet south and 2330 feet west of the NE corner of Section 34-T110N-R49W (N 44.29210, W -96.69648) (SW ¼ NE ¼)

The works are capable of diverting and conveying to the place of use **4.17** cu. ft. per second of water which is to be used for **Industrial use**.

The license should be issued for **2.67** cfs (**1,935 acre-feet annually**).

All structures, wells and lands on map **Y**

Comments or other permit(s) associated with the project:

Water from these three wells is used for the production of ethanol. The wells have the capability to produce 4.17 cfs of water; however, the wells are not used at the same time. This permit is authorized to appropriate 2.67 cfs with a maximum diversion of 1,935 acre-feet annually which is to be reported each year. In reviewing their reported water usage for the last three years, (which were the highest water use years) the ethanol plant, on average, pumps at a rate of approximately 1.62 cfs and has used on average 1,179 acre-feet of water annually which is well below what is authorized by this permit.



Mike DeFea

Natural Resources Project Engineer
DENR, Water Rights Program

Date report completed: **May 3, 2010**

Water Permit No. 6325-3

Valero Renewable Fuels Co.

One Valero Way

San Antonio, TX 48249



Mike DeFea

Mike DeFea
Natural Resources Engineer
DENR, Water Rights Program
May 3, 2010

0 405 810 1,620 2,430 3,240 Feet



South Dakota
Department of Environment
& Natural Resources
Protecting SD's Tomorrow... Today



**DEPARTMENT of ENVIRONMENT
and NATURAL RESOURCES**

JOE FOSS BUILDING
PMB 2020
523 EAST CAPITOL
PIERRE SOUTH DAKOTA 57501-3182
www.state.sd.us/denr

JUL 28 2010

6325-3

Valero Renewable Fuels Company LLC
One Valero Way
San Antonio TX 48249-1616

Joel Reiersen, Plant Mgr
Valero Renewable Fuels Company LLC
One Valero Way
Aurora SD 57002-6502

Dear Sirs:

Enclosed is Water License No. 6325-3. This is the final water right document completing your process of obtaining a Water Right. Included with your license is a map prepared by the staff engineer who conducted the field investigation.

For your information SDCL 46-6-27 requires that if the owner of an existing well, such as the wells authorized by Water Right No. 6325-3, constructs a replacement well(s) and does not plan to use the old well, the old well is considered abandoned and must be plugged. Also, any well that is being used or is not considered abandoned must be valved and controlled, if flowing, or sealed and capped so that no leaking occurs either underground or at the surface.

As long as you use the water beneficially, as stated in the Water License, the State Water Laws provide that you have a continuing right to use the water. If you have any questions, please contact our office.

Sincerely,

A handwritten signature in black ink, appearing to read "Garland Erbele". The signature is fluid and cursive, with the first name "Garland" being more prominent than the last name "Erbele".

Garland Erbele, Chief Engineer
Water Rights Program
(605) 773-3352

enclosures

STATE OF SOUTH DAKOTA

WATER LICENSE NO. 6325-3

(1) Vera Sun Energy made Application No. 6325-3, May 21, 2002 for a water permit to divert 2.67 cubic feet of water per second (1,935 acre-feet annually) from ground water (three wells – Big Sioux Aurora Aquifer), Brookings County, South Dakota for industrial purposes. Permit No. 6325-3, with a priority date of May 21, 2002 was approved September 25, 2002 and issued to the applicant for diversion of water with construction of the described water supply system to be completed on or before September 25, 2007 and for the application to beneficial use of said water on or before September 25, 2011.

On June 22, 2009, Water Permit No. 6325-3 was transferred from VeraSun Energy Corporation to Valero Renewable Fuels Company LLC.

(2) It is certified that the permit holder has complied with the provisions of South Dakota State Law relating to completion of the construction of the water supply system and is entitled to divert 2.67 cubic feet of water per second for beneficial use. The location of the diversion points are as follows:

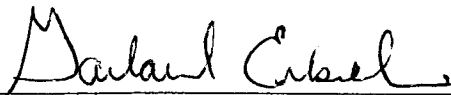
- **Well #1:** 270 feet south & 520 feet west of the NE corner of Section 34, T110N, R49W (NE ¼ NE ¼);
- **Well #2:** 2,010 feet south & 365 feet west of the NE corner of Section 34, T110N, R49W (SE ¼ NE ¼);
- **Well #3:** 1,665 feet south & 2,330 feet west of the NE corner of Section 34, T110N, R49W (SW ¼ NE ¼).

(3) The permit holder has complied with the provisions of South Dakota State Law relating to the application of water to beneficial use in an ethanol production plant.

(4) Pursuant to South Dakota Water Law 46-5-30.1 Valero Renewable Fuels Company LLC, One Valero Way, San Antonio, TX 48249-1616 the holder and/or owner of Water Right No. 6325-3 is issued a license to appropriate water, the right to use 2.67 cubic feet of water per second (1,935 acre-feet annually) from ground water (three wells – Big Sioux Aurora Aquifer) with a priority date of May 21, 2002 from the location specified in (2) of this license for industrial use.

This license is subject to South Dakota Water Law, any limitations or conditions listed in Water Right No. 6325-3 and subject to the following qualifications:

- The wells approved under this Permit will be located near domestic wells and other wells which may obtain water from the same aquifer. The well owner under this Permit shall control his withdrawals so there is not a reduction of needed water supplies in adequate domestic wells or in adequate wells having prior water rights.
- The wells authorized by Permit No. 6325-3 shall be constructed by a licensed well driller and construction of the well and installation of the pump shall comply with the Water Management Board Well Construction Rules, Chapter 74:02:04 with the well casing pressure grouted (bottom to top) pursuant to Section 74:02:04:28 (***all three wells were drilled in 2003 by Huron Drilling Inc and logs are on file with the Water Rights Program***).
- Valero Renewable Fuels Company LLC shall report to the Chief Engineer annually the amount of water withdrawn from the Big Sioux:Aurora Aquifer.



Garland Erbele, Chief Engineer
Water Rights Program
Department of Environment and Natural Resources

JUL 28 2010

date

