RAS 12745

U.S. NUCLEAR REGULATORY COMMISSION
In the Matter of System Energy Resources
Docket No. 52-009-ESP Official Exhibit No. Staff 25
OFFERED by: Applicant/Licensee Intervenor
NRC Staff Other
IDENTIFIED on 11/29/07 Witness/Panel
Action Taken: ADMITTED REJECTED WITHDRAWN
Reporter/Clerk

NRC STAFF EXHIBIT 25

GGNS
EARLY SITE PERMIT APPLICATION
PART 2 – SITE SAFETY ANALYSIS REPORT

TABLE 2.4-23
(UFSAR TABLE 2.4-21)

RESULTS OF CHEMICAL ANALYSES OF WATER SAMPLES

	A[1]	B	C	D	E	F	G	H	J	K	L
pH	7.9	7.2	8.3	7.6	8.0	7.3	7.4	7.1	7.8	7.6	7.2
Dissolved carbon dioxide, ppm	8.2	5.5	1.5	4.6	4.4	37.0	22.0	58.0	7.0	23.0	10.0
Conductivity, mhos/cm	640.0	250.0	480.0	75.0	375.0	490.0	450.0	460.0	325.0	430.0	210.0
Color, Co-Pt units	5.0	5.0	10.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Total solids, ppm	664.0	514.0	516.0	184.0	408.0	626.0	548.0	448.0	508.0	434.0	902.0
Suspended solids, ppm	60.0	88.0	56.0	106.0	50.0	154.0	98.0	6.0	192.0	22.0	625.0
Dissolved solids, ppm	604.0	426.0	460.0	78.0	358.0	472.0	450.0	442.0	316.0	412.0	277.0
Total hardness as $CaCo_3$, ppm	285.1	275.3	4.0	20.2	290.4	443.3	405.7	350.8	141.9	326.8	208.0
Calcium, ppm	66.2	64.3	0.8	3.3	70.7	99.2	92.4	68.5	30.8	62.8	–
Magnesium, ppm	29.0	27.8	0.5	2.9	28.5	47.4	42.4	43.6	15.8	41.2	–
Alkalinity as $CaCo_3$, ppm PP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
(MO)	596.0	372.0	368.0	30.0	326.0	445.0	401.0	371.0	114.0	337.0	210.0
Silica, ppm	17.5	16.5	12.4	17.1	17.5	22.5	22.5	22.5	7.0	22.5	17.5
Chlorides, ppm	9.8	6.8	18.0	5.5	4.8	3.5	5.5	5.5	18.0	5.5	9.0
Sulfates, ppm	2.1	5.3	3.7	8.2	2.5	*0.1	*0.1	*0.1	45.7	*0.1	22.6
Nitrates, ppm	*0.05	*0.05	*0.05	*0.05	*0.05	*0.05	*0.05	*0.05	*0.05	0.1	0.3
Iron, ppm	*0.3	*0.3	*0.3	3.6	*0.3	*0.3	*0.3	*0.02		*0.02	*0.020
Manganese, ppm	0.44	0.22	*0.013	0.013	0.019	3.4	*0.05	*0.009		*0.009	*0.009
Potassium, ppm	5.9	5.9	7.4	1.5	3.6	1.6	2.0	1.46	3.69	1.79	1.8
Sodium, ppm	94.2	44.2	158.0	7.1	11.9	6.6	7.2	12.3	19.5	8.2	15.5
Lead, ppm	*0.05	*0.05	*0.05	*0.05	*0.05	*0.05	*0.05	*0.009		*0.009	*0.009
Zinc, ppm	0.19	0.32	*0.05	0.6	0.23	1.0	0.5	*0.020		*0.020	*0.020
Copper, ppm	*0.01	*0.01	*0.01	*0.01	*0.01	--	0.0	*0.020		*0.020	*0.020

Template = SECY-027

SECY-02

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USNRC

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RULEMAKINGS AND
ADJUDICATIONS STAFF

TABLE 2.4-23 (Continued)

	A[1]	B	C	D	E	F	G	H	J	K	L
Aluminum, ppm	*0.1	*0.1	*0.1	*0.1	*0.1	*0.1	*0.1	*0.009		*0.009	*0.009
Coliform	--	--	--	--	--	Negative	Negative	--	--	--	--
Arsenic, ppm	0.009	0.009	0.003	0.009	0.001	--	--	0.005	--	0.009	0.004
Chromium, ppm	-	--	--	--	--	*0.005	--	*0.009	--	*0.009	*0.009
Flouride, ppm	-	--	0.10	0.10	0.10	--	--	0.10	0.10	0.10	0.10

Sample Identification and Date of Sample Collection:

A - Well 6[2]; Mississippi River Alluvium, 2/9/72
B - Well 31; Pleistocene Terrace Deposits, 2/10/72
C - Well 4; Catahoula Formation 2/10/72
D - Bayou Pierre (surface water), 2/9/72
E - Well 1; Mississippi River Alluvium 2/9/72
F – P11; Mississippi River Alluvium 5/3/72
G – OW4; Mississippi River Alluvium 5/3/72
H – Test Water Well 1; Pleistocene Terrace Deposits, 6/30/72
J – Mississippi River (surface water), 6/29/72
K – Piezometer P34 (El. +55); Pleistocene Terrace Deposits, 5/24/72
L – OW118; Pleistocene Terrace Deposits, 10/10/72

NOTES:

1. Sample locations shown on [GGNS UFSAR] Figure 2.4-31
2. Well data contained in [GGNS UFSAR] Table 2.4-23

* Less Than