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September 14, 2007
72 FR 52586

Re: Draft Environmental Impact Statement for an Early Site Permit (ESP)
at the Vogtle Electric Generating Plant Site (NUREG-1872)
Published in the Federal Register on September 14, 2007, (72 FR 52586)

Dear Nuclear Regulatory Commission:

The South Carolina Department of Health and Environmental Control has prepared the attached comment in regards to the Draft Environmental Impact Statement for an Early Site Permit (ESP) at the Vogtle Electric Generating Plant Site (NUREG-1872).

If you have questions about this comment, I can be reached at 803-898-3112.

Sincerely,

Charles M. Gorman, P.G., Director
Water Monitoring, Assessment and Protection Division
Bureau of Water
South Carolina Department of Health
and Environmental Control

cc: David Baize, BOW
Heather Preston, BOW
Larry Turner, BOW

Attachments

SUNSI Review Complete
Template = ADM-013

E-RIDS = ADM-03
Add = M-Notich (mdn)
C. Guerrero (cxg3)

South Carolina Department of Health and Environmental Control
Comments On:
*Draft Environmental Impact Statement for an Early Site Permit (ESP)
at the Vogtle Electric Generating Plant Site (NUREG-1872)*

In regard to statements and representations made in Section 2.6.1.1 and Section 5.3.2.1 regarding potential impacts of the proposed water withdrawals from the Savannah River, we believe that the following issues are pertinent to the document scope:

As presented in the document the environmental impact related to the proposed withdrawals is largely based on an estimate of the net withdrawal amount as a percentage of total river discharge near the proposed withdrawal location. In the absence of a proximally located active¹ flow gaging station the authors have used the discharge data from the upstream J. Strom Thurmond dam as a surrogate for the flow at the downstream Vogtle site. The authors present four stream discharge scenarios for the purpose of assessing environmental risks: "average" discharge and the three progressively lower discharge regimes that would exist under Drought Level I through Drought Level III conditions. They explicitly exclude analysis of discharge regimes under Drought Level IV on the basis that the discharge would not be predictable under the discharge parameters dictated by Drought Level IV status.² However, the average discharge from the dam has been below Drought Level III levels (3800 cfs) for the latest three-month period.³ The stated average discharge of 8830 cfs has not been reached on a monthly average basis for twenty-seven (27) months and the annual average discharges for the years 1988 and 2002 were barely above the 3800 cfs level set for Drought Level III. In light of the fact that adverse environmental impacts from additional water withdrawals will most likely occur during periods of low discharge, it would seem prudent to pay particular attention to the ramifications of additional withdrawals for periods of extremely low discharge rather than to simply disregard them on the basis that the Army Corp of Engineers does not publish minimum discharge figures for conditions under Drought Level IV. The assessment must include specific discussion of the impacts related to the minimum discharge under which the facility will operate.

While the use of the discharge data from the referenced dam may be conservative under moderate to high discharge conditions, it is possible that withdrawals and other losses between the dam outlet and the downstream Vogtle intakes will actually result in less discharge at the intakes than that being released upstream. This possibility needs to be enumerated.

Section 2.6.3.1 addresses the issue of water quality conditions without projecting impacts from proposed activities. Nor, have they addressed the issue of potential downstream impacts related to reduced water flow on a watershed basis. The comments and statements regarding water quality issues are not only limited to current conditions, they appear to be geographically limited to the immediate vicinity of the facility. The reduction of river discharge from the proposed withdrawals will almost surely propagate downriver. The potential impact on the remaining downriver basin must be addressed, as there may be impacts beyond the vicinity of the facility. Of particular concern would be the effects of the proposed withdrawals during low discharge periods on dissolved oxygen (DO) levels and saltwater incursion in the lower Savannah River basin and Savannah Harbor, both of which are already problematic.

¹ The USGS gaging station (02197320) in the graphical representation depicted in the report (draft NUREG-1872 Figure 2.5) was discontinued on 09/30/2002

² Outflow (discharge) = Inflow

³ See accompanying table

Average Monthly Values - US Army Corp of Engineers - Thurmond Project Outflow in CFS

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1967	7628	6612	7480	5945	5745	14384	8151	7870	8274	6244	7706	15754	8483
1968	16595	6660	6013	6793	6609	8091	6462	6923	6316	6345	6424	6259	7458
1969	9688	12404	9649	16257	11609	6576	6413	6284	6566	6344	6115	6200	8675
1970	5993	5844	5761	5829	5746	6091	6181	6231	6150	5896	5619	5497	5903
1971	4665	4612	15580	7322	7737	6541	5875	6263	6065	6131	6698	12945	7536
1972	14806	13047	6557	5898	8144	9185	7316	6206	6401	6286	6284	12167	8525
1973	12753	14874	15283	21160	10242	18384	6455	6962	5986	6142	6182	7821	11020
1974	15954	19691	7113	11424	7449	6259	6452	7255	6221	6288	6242	5760	8842
1975	10647	23925	23153	16601	12040	7766	6103	6148	6456	10761	11829	11257	12224
1976	9753	8819	14228	11208	9794	15177	11526	6254	6494	6267	7879	16492	10324
1977	10527	7041	8666	17735	6801	6388	6916	5881	5899	5624	11677	10249	8617
1978	12017	15879	7274	5950	9984	7184	5971	5844	5708	5641	5507	5402	7697
1979	5436	6430	16696	22367	9490	13226	6354	6851	6166	7313	10351	10762	10120
1980	12132	9947	17828	23779	9373	10864	6602	6122	6064	5634	5916	5699	9997
1981	5852	4821	5201	5073	4992	4790	4825	4591	5237	4613	3920	3763	4806
1982	5261	8060	6046	6011	4913	4941	4825	5005	5946	5630	5046	7374	5755
1983	11225	13471	13557	21759	6771	8736	5357	5661	5354	5181	4183	6128	8949
1984	9804	11280	15160	11285	14147	6986	6666	13325	6297	5402	5365	4900	9218
1985	5263	8441	5951	5348	4766	4581	4748	4674	4617	4650	4689	4620	5196
1986	6318	5214	4621	4714	4714	5115	5248	4707	4895	3809	3287	3345	4666
1987	3708	8652	11553	8400	4709	4470	5425	7966	9060	6517	5624	5272	6780
1988	4676	4854	4618	3790	3684	3714	3591	3734	3694	3700	3702	3626	3949
1989	3640	3642	3490	3278	3579	3605	3579	4582	6520	11909	5358	13755	5578
1990	8412	19745	22315	6629	10887	5585	6106	7923	6016	4987	5145	5441	9099
1991	4325	6858	8144	10922	15843	7141	8896	12812	6138	5683	6343	5983	8257
1992	6550	5680	9834	7569	5128	7099	6096	6292	6193	10088	13201	25877	9134
1993	25580	20770	18264	16588	8208	7188	6313	6154	4898	4646	4667	4718	10666
1994	5742	5153	6590	7636	5353	6720	10810	16659	8695	12447	10336	10957	8925
1995	10622	14264	17009	6495	5387	5324	6356	6875	8235	9383	17364	10839	9846
1996	8057	22417	20606	9271	7907	8823	5834	6209	6808	7224	4682	6382	9518
1997	9200	12795	14214	9871	9051	8373	6544	8110	4773	5464	5159	9374	8577
1998	18938	28571	21147	20672	17242	6486	6099	5980	5815	6466	6156	5178	12396
1999	4881	6333	5033	5495	4566	4553	4967	6196	5753	4568	4202	4097	5054
2000	4343	3991	4234	4058	4046	4030	4166	4847	4340	4386	4090	4252	4232
2001	4430	4082	4120	4220	3984	4019	4395	4530	4086	4172	4107	4235	4198
2002	4079	4094	3909	3908	3975	3826	4094	3972	3716	3657	3613	3606	3871
2003	3602	4406	13999	11937	16618	12020	15489	10121	5321	4974	4808	9832	9427
2004	6003	6718	6967	4354	4009	4521	4694	5013	11746	11092	6570	12232	6993
2005	7061	9818	10438	13082	8901	13179	13713	12042	6335	5396	5786	5690	9287
2006	5971	6479	8375	4645	4336	4632	5210	5847	3868	3876	3954	3839	5086
2007	4355	5924	5559	3967	5054	4807	4018	3970	3910	3782	3691	3713	4396
Maximum	25580	28571	23153	37591	22521	18384	15489	16659	11841	14282	17364	25877	
Minimum	3602	3377	3490	3278	3579	3605	3579	3734	3694	3657	3287	3345	
Average	8313	9665	10675	10303	7926	7278	6472	6719	6123	6280	6334	7707	