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Mr. R. L. Tedesco
Assistant Director for Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

SUBJECT: Waterford SES 3 - Docket No 50-382
SER, SSER No. 1 and 2 Comments

Enclosed please find our comments on Waterford 3's SER and the first and second Supplements. Most of these comments were transmitted to the NRC staff unofficially last fall.

If you have any questions regarding the comments, please contact the Licensing Engineering Supervisor-Nuclear, Roy Prados.

L. V. Maurin

LVM/MJM/pco

Attachment

cc: S. Black, E. L. Blake, W. M. Stevenson

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SER

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
1 - 1	Unique Plant Features	1.11	<p>Page 1-10 (2) Containment and Shield Building Design Following an accident; air is released to atmosphere during the exhaust cycle (Phase 1) of SBVS operation, not during the recirculation cycle (Phase 2). See FSAR Subsection 6.2.3.2.2 (Amendment 19).</p>

SER

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
2-1	Nearby Industries	2.2.1	Page 2-8 Table 2.4 does not include the hazardous 8 inch LPG pipeline of Union Carbide. Refer to FSAR Subsection 2.2.3.1.3.2
2-3	Airports	2.2.4	Page 2-11 In Table 2.5 there are 2 revisions. The annual number of movements for the proposed St John the Baptist Airport is changed from 66,950 to 103,773 and the year that these estimates correspond with is changed from 1995 to 1997 per amendment 19 of the FSAR. Page 2-12 The third and fourth sentences in the second paragraph do not reflect the new data presented in Amendment 19 of the FSAR. The projected number of aircraft operations initially is to be about 44,330 per year with an increase to about 63,473 per year in ten years. Projection of this growth rate to 40 years results in an estimated 103,773 operations per year for the year 1997. See FSAR Subsection 2.2.4
2-4	Meteorological Measurements Program	2.3.3	Page 2-14 The 130 ft tower is located approximately 1830 ft east-southeast of the reactor building in a field formerly planted in sugar cane but currently planted in soybeans.

SER

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
2-5	PMF-Induced Levee Failure	2.4.2.2	Page 2-17 The word "reasonably" is used in the definitions given for PMH and PMF. Being "reasonable" is not a proper limiting criterion for Probable Maximum events; they need only be less than impossible. The words "reasonably possible" or "reasonably characteristic" are used in the definitions of Standard Project storms, floods, and hurricanes. The correct definitions of the PMH and PMF are not quoted in the FSAR, but are given in the standard references cited.
* 2-6	Local Intense Precipitation	2.4.2.3	Page 2-18 The combined sump pump capacity is given as 280 gpm, based on information given in the FSAR which was not up to date. The actual combined capacity of the pumps installed is 650 gpm. The pertinent FSAR section was changed in Amendment 21 (8/81).
2-8	Geologic Information	2.5.1	Page 2-24 The reference to Figure 361.7-1 is incorrect since it does not show Fault 4 nor does it indicate the latest interpretation of Fault 3. The correct reference should be to Figure 2.5-19, Fault Surfaces in the Site Area.

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
2-8	Geologic Information (Cont'd)	2.5.1	<p>The two-mile long northeasterly trending branch fault was a drafting error by Geomap personnel. The NRC Geosciences Branch was informed of this.</p> <p>Fault 4 is not a reinterpretation Geomap's Fault 1. Geomap had no convincing evidence for Fault 1. Also, it would be beneficial to reference the structural contour maps of Horizons 2 and 3, Figures 2.5-21 and 2.5-22, which show unfaulted Pliocene sediments.</p> <p>The Geomap Company withdraw Fault 2A on its May 1, 1981 versions of Horizons A and B. NRC was sent copies of these maps.</p> <p>The SER text is incorrect in regard to the age of Fault 2B. The response to NRC Question 361.7 and the FSAR text, Page 2.5-27a, state that this faulting ceased during the Miocene. The response to Question 361.7 also states that the Geomap Company's Fault 2B "is a slightly different and less precise interpretation" of a fault already depicted in the FSAR. Therefore it is not a "new" fault.</p>
2-9	Maximum Earthquake	2.5.2.3	<p>Page 2-27</p> <p>The intensity of the October 19, 1930 Donaldsonville, Louisiana earthquake is V-VI MM or "less than VI MM", as stated in the FSAR text, Page 2.5-43</p>

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
2-12	Regional Climatology	2.3.1	<p>Page 2-13</p> <p>Although the 1 minute wind speed officially measured in New Orleans was 44m/sec (98 mph), winds possibly as high as 110 mph were estimated during the event but could not be verified because of recorder limitations.</p> <p>Measured wind speed should be accompanied with the appropriate measurement height. Therefore;</p> <p>"The extreme wind speed (fastest mile of wind at 30 ft above the ground) with a recurrence interval of 100 years has been computed to be 45m/sec (100 mph) for the site area. (Thom 1968)"</p>

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
3-1	ISI P&V	3.9.6	<p>Page 3-27 Complete ISI program will be submitted 6 months prior to Comm. Op. (Q121.2)</p>

SER

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
5-1	Reactor Coolant	5.1	Page 5-1 There is one outlet nozzle to the shutdown cooling system in <u>each</u> reactor vessel outlet pipe. Refer to FSAR Subsection 5.1.
5.2	Integrity of RCPB	5.2.1.1	Page 5-3 As indicated in FSAR Table 5.2-1, (Amendment 22) certain NSSS valves are constructed to Draft ASME Code for Pumps and valves for Nuclear Power Plants, <u>Class I</u> , through March 1970 Addenda.

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ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
6-1	Combustible Gas Control System	6.2.5	Page 6-17 The SER references WCAP-7820. The FSAR references WCAP-7709-L Dated 7-71 for results of testing program on hydrogen recombiners.
6-2	Emergency Core Cooling	6.3.2	Page 6-22 The valve operator on the common ECCS pump recirculation line was removed but the valve was not actually replaced by a spool piece. The response to Question 211.99 was so revised in Amendment 23 (11/81)
6-3	Emergency Core Cooling	6.3.2	Page 6-22 Eight valves are noted that will have power removed during normal operation. The response to Question 211.94, accepted by the NRC in SER Supplement No. 1, Section 5.4.3 lists only six valves that will have power removed during normal operation.

SER

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
7-1	Reactor Protective Systems	7.1.2	<p>Page 7-4</p> <p>There are two motor-generator sets supplying power to control element drive mechanism (CEDM) - not four. Refer to FSAR Section 7.2.1.1.4.</p>
7-2	ESFAS Description	7.3.1	<p>Page 7-10</p> <p>(2) Containment Cooling Actuation Signal (CCAS) was deleted in Amendment 17 from the plant protective system. The containment cooling system is automatically actuated by a SIAS. (See FSAR Section 7.3.1.1.7).</p> <p>(4) Containment Spray Actuation Signal (CSAS) is generated on <u>High-High</u> containment pressure and SIAS. (See FSAR Section 7.3.1.1.3).</p> <p>(5) The Main Steam Isolation Signal (MSIS) can also be generated by high containment pressure as well as low Steam Generator pressure. (See FSAR Section 7.3.1.1.5)</p>
7-3	Differences from Preliminary Design	7.3.2	<p>Page 7-10</p> <p>The Containment Isolation Actuation Signal (CIAS) is also initiated by low pressurizer pressure. The CCAS has been deleted from the DPS, refer to it in 7-2.</p>
7-4	Diversity of Actuation Signals	7.3.3	<p>Page 7-10</p> <p>Refer to item 7-2 on CCAS. Items 4 thru 7 in Section 7.3.1 depend on monitoring of <u>two</u> variables.</p>
7-5	Shutdown Cooling System	7.4.2	<p>Page 7-14</p> <p>The shutdown line isolation valve will close automatically when pressure reaches 700 psig-not 500 psig, as a result of NRC Question 211.92</p>

SER

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
8-1	Adequacy of Distribution System Voltages	8.2.4	Page 8-7 Third line; "... instantaneous relays (<u>type NGV 13B</u>)."
8-2	A C Power Systems	8.3.1	Page 8-9 Fourth paragraph; "... above a level which would <u>not</u> degrade ..."
8-3	D C Power Systems	8.3.2	Page 8-13 Bottom of page (2) Battery current indication (<u>switchgear room</u>) (3) Direct current voltage indication (<u>switchgear room and main control room</u>).
8-5	Adequacy of Plant Distribution System	8.2.4	Page 8-6 (1) The relay contacts are combined in one-out-of-three logic to generate an alarm on loss of instrument potential transformer fuse, or at degraded voltage conditions below 87% . At 90% of bus voltage a preliminary alarm is actuated. Refer to FSAR Section 8.3.1.1.2.
8-6	Power Lockout to Motor-Operated Valves	8.4.3	The power lockout of the valves is accomplished by locking the breakers open (response to Question 211.94 accepted in SER Supplement No. 1, Section 5.4.3), not by breaker rack out.

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
9-1	Emergency Diesel Engine Fuel Oil Storage and Transfer System	9.5.4.2	Page 9-37 Accumulated water will be drained from the storage tanks monthly. Fuel oil samples will be analyzed quarterly for micro-organisms and biocides added as needed. Each time a tank is drained it will be cleaned if neces- sary. Cleaning will be conducted at least every ten years. Refer to the response to Question 040.136 (Amendment 24).

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
10-1	Main Steam Supply System Downstream of MSIV's	10.3.2	Page 10-5 The reference to the EFW Pump Turbine steam supply should be made in 10.3.1. This supply line is located upstream of the MSIV, and outside containment. Refer to FSAR Figure 10.2-4.
10-2	Emergency Feedwater System Standard Review	10.4.9.1	Page 10-18, Section h Remote manual control for EFWS components is available from the control room and the auxiliary panel (LCP-43); however, there is no local manual control panel.

SER

ITEM NO.	SER SECTION	SER SECTION NO.	COMMENTS
11-1	Process & Effluent Radiological Monitors	11.3	Page 11-20; Table 11.7 Steam Generator Blowdown Heat Exchanger cooling water monitor should be called the Circulating water discharge radiation monitor to prevent misrepresentation.
11-2	Industrial Waste System	11.2.1.5	Page 11-12 Low activity waste water will discharge through the oil separator to the Arpent Canal, not the circulating water system discharge.
11-3	Gaseous Waste Processing Systems	11.2.2	Page 11-14 Changeover from untreated MCES or TGSS exhaust to filtered exhaust occurs at the alarm setpoint. FSAR Table 11.5-1 gives the alarm setpoint for MCES releases as 1×10^{-4} micro-Ci/cm ³ . The detector has no capability to measure flow, thus the setpoint is given as a concentration, not a rate.
11-4	Main Condenser Evacuation System	11.2.2.5	Page 11-16 Same as comment 11-3.
11-5	Turbine Gland Sealing System	11.2.2.6	Page 11-16. Same as comment 11-3.

ITEM NO.	SSER SECTION	SSER SECTION NO.	COMMENTS
5-1	Reactor Vessel Materials	5.3.1	Page 5-1 As indicated in FSAR T5.2-1 (Amendment 22) certain NSSS valves are constructed to <u>Draft ASME Code for Pumps and Valves for Nuclear Power Plants, Class I, through March 1970 Addenda</u>
6-1	Organic Materials	6.1.2	Page 6-1 As indicated in the response to staff question 281.2 not <u>all</u> the protective coatings inside the containment have been qualified in accordance with ANSI N101.2, ANSI N5.12, and Regulatory Guide 1.54. However, the total amount of unqualified coating is insignificant in terms of an increased combustible gas generation rate or an increased amount of debris which could reach the SIS sump.

ITEM NO.	SSER SECTION	SSER SECTION NO.	COMMENTS
13-1	Plant Organization	13.1.2	<p>Page 13-27</p> <p>The Startup Engineering Supervisor was <u>not</u> spoken to individually by the NRC staff during the December, 1981 team audit.</p>
13-2	Plant Organization	13.1.2	<p>Page 13-23 Maintenance</p> <p>Paragraph (6) - 'Startup Engineers report to the Lead Engineer - Startup (LES).</p>
13-3	Plant Organization	13.1.2	<p>Figure 13.1-7</p> <ol style="list-style-type: none"> 1. The Startup Engineering Supervisor should be the Lead Engineer - Startup 2. Administration should be Unit Coordinator 3. Document Control should be Ebasco Document Control 4. Group System Engineers should be Assistant Test Directors 5. In the legend: <ul style="list-style-type: none"> (B) Four top positions... (C) Six top positions... (D) Five top positions...
13-4	Plant Organization	13.1.2	<p>Page 13-25</p> <p>The Unit Coordinator - Startup Operational Test reports to the LES (Lead Engineer - Startup), not the SES.</p>