Tennessee Valley Authority, 1101 Market Street, LP 5A, Chattanooga, Tennessee 37402-2801

July 18, 2008

10 CFR 52.79

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

In the Matter of) Docket No. 52-014 and 52-015
Tennessee Valley Authority)

BELLEFONTE COMBINED LICENSE APPLICATION – RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION – EQUIPMENT AND FLOOR DRAINAGE SYSTEM

Reference: Letter from Tanya Simms (NRC) to Andrea L. Sterdis (TVA), Request for Additional Information Letter No. 042 Related to SRP Section 09.03.03 for the Bellefonte Units 3 and 4 Combined License Application, dated June 19, 2008.

This letter provides the Tennessee Valley Authority's (TVA) response to the Nuclear Regulatory Commission's (NRC) request for additional information (RAI) items included in the reference letter.

A response to the NRC request in the subject letter is addressed in the enclosure which does not identify any associated changes to be made in a future revision of the BLN application.

If you should have any questions, please contact Thomas Spink at 1101 Market Street, LP5A, Chattanooga, Tennessee 37402-2801, by telephone at (423) 751-7062, or via email at tespink@tva.gov.

I declare under penalty of perjury that the foregoing is true and correct.
Executed on this 18th day of July, 2008.

Andrea L. Sterdis
Manager, New Nuclear Licensing and Industry Affairs
Nuclear Generation Development & Construction

Enclosure
cc: See Page 2

D085
NRO

cc: (Enclosures)
E. Cummins, Westinghouse
S. P.Frantz, Morgan Lewis
M.WGettler, FP&L
R. C.Grumbir, NuStart
P. S. Hastings, NuStart
P. Hinnenkamp, Entergy
M.C. Kray, NuStart
D. Lindgren, Westinghouse
G.D. Miller, PG&N
M.C.Nolan, Duke Energy
N.T. Simms, Duke Energy
T. Simms, NRC/HQ
G.A. Zinke, NuStart

cc: (w/o Enclosure)
B. Anderson, NRC/HQ
M.M.Comar, NRC/HQ
B. Hughes ,NRC/HQ
R.G. Joshi, NRC/HQ
R.H. Kitchen, PGN
A.M.Monroe, SCE&G
C. R.Pierce, SNC
R. Register, DOE/PM
L. Reyes, NRC/RII
J. M.Sebrosky, NRC/HQ

Enclosure
TVA letter dated July 18, 2008
RAI Response

Responses to NRC Request for Additional Information letter No. 042 dated June 19, 2008

(3 pages, including this list)

Subject: Equipment and Floor Drainage System in the Final Safety Analysis Report

RAI Number	Date of Response
09.03.03-01	This letter – see following pages

Attachments / Enclosures	Pages Included
None	

Enclosure
TVA letter dated July 18, 2008
RAI Response

NRC Letter Dated: June 19, 2008

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 09.09.03-01

In COL FSAR 9.2.9.2.2, the applicant provides a description of the waste water retention basin to address COL Information Item 9.2.11.2. The information provided does not include a description of water level instrumentation and radiation monitoring in the waste water retention basin. These design features were included and approved in the AP1000, Rev. 15, design certification document, as documented in NUREG-1793, "Final Safety Evaluation Report Related to Certification of the AP1000 Standard Design." In Rev. 16, Westinghouse removed all references to the waste water retention basin from the DCD and identified it as COL information in Section 9.2.11.2. Therefore, please provide a description of water level instrumentation and radiation monitoring in the waste water retention basin.

BLN RAI ID: 602

BLN RESPONSE:

The sources of water received in the Waste Water Retention Basin and radiation monitoring of the inlet water sources are described below.

1) Service Water: The Service Water Cooling Tower blowdown flow is routed to the Waste Water Retention Basin as described in FSAR Subsection 9.2.1.2.1. This blowdown is used to control levels of solids concentration in the Service Water system (SWS). The SWS has radiation monitoring instrument SWS-JE-RE008 as shown in FSAR Figure 9.2-202. If radioactive fluid is detected in the SWS, tower blowdown flow can be isolated by remote manual control per DCD Subsection 9.2.1.3. Provisions are also available for taking local fluid samples for analysis.

2) Oily Waste Separator: As discussed in DCD Subsection 9.2.9.2.1, wastes from the turbine building floor and equipment drains (which include laboratory and sampling sink drains, oil storage room drains, the main steam isolation valve compartment, auxiliary building penetration area and the auxiliary building HVAC room) are collected in the two turbine building sumps. The turbine building sump pumps route the waste water from either of the two sumps to the oil separator for removal of oily waste. The waste water from the oil separator flows to the waste water retention basin.

As described in DCD Subsections 9.2.9.2, 9.2.9.5 and 11.5.2.3.3, a radiation monitor, WWS-JE-RE021, located on the common discharge piping of the turbine building sump pumps, provides an alarm upon detection of radioactivity in the waste water. The radiation monitor also trips the sump pumps on detection of radioactivity to isolate the contaminated waste water. Provisions are included for sampling the sumps.

The Diesel Fuel Area sump effluent is a sources of waste water that will drain downstream of the Turbine Building sump to the Waste Water Retention Basins; therefore, this water bypasses the radiation monitors. The Diesel Fuel Area sump effluent does not interact with any potentially radioactive sources; therefore, drainage from the Diesel Fuel Area sump effluent does not require monitoring.

Based on the above configuration, the potentially contaminated fluids entering the retention basin are monitored with the radiation monitoring instruments. Therefore, radiation monitoring in the waste water retention basin itself is not required.

The overflow from the retention basin cascades through a series of ponds before being discharged into Town Creek per FSAR Section 9.2.9.2.2. By design, the pond is allowed to overflow and level is not a controlled parameter; therefore, level instrumentation for the waste water retention basin is not required.

The response is PLANT-SPECIFIC.

ASSOCIATED BLN COL APPLICATION REVISIONS:

None

ATTACHMENTS/ENCLOSURES:

None