

PMBelCOL PEmails

From: Gregory Makar
Sent: Tuesday, March 25, 2008 7:44 AM
To: David Terao
Cc: 'Tanya Simms'; BelCol Resource
Subject: Addition to Bellefonte 9.5.4 RAI

David,

RAI 51/Question 127 is one we submitted last week about the diesel fuel oil quality for the Bellefonte application. I copied it below, with an additional sentence (in bold) that I would like to add under part (b). I notified the PM, Tanya Simms, so she knows to expect this.

Buried pipe is normally coated and cathodically protected. The cathodic protection takes care of the inevitable defects in the coating, and I should have asked about it in the first place.

Please review the proposed additional sentence below when you can, and then I will email the additional sentence to Tanya as she suggested.

Thank you,
Greg

----- RAI Follows - Diesel Fuel Oil Quality 9.5.4 -----

(a) Rev. 16 of the AP1000 DCD states that sunlight heat transmission to the diesel fuel oil in the storage tank will be minimized by the color of the epoxy-urethane exterior paint. Reducing the effects of sun heat input is part of COL Information Item 9.5-13 in the AP1000 DCD (DCD Table 1.8-2 and NUREG-1793, Appendix F, page F-15). Provide a description in the COL application to address COL Information Item 9.5-13, such as identifying the color of the coating and the basis for its selection.

(b) Subsection 9.5.4.2.2.5 of the AP1000 DCD indicates there are buried sections of diesel fuel oil system piping that will be painted for corrosion protection. Given that the supply of fuel oil to the generators depends on the integrity of this piping, describe the inspection and maintenance program for this coating system. Discuss whether the buried sections have cathodic protection, as recommended, for example, in NACE International standard RP0169 ("Control of External Corrosion on Underground or Submerged Metallic Piping Systems").

(c) Subsection 9.5.4.2.2.5 of the AP1000 DCD states that the interior surfaces of the diesel fuel oil storage tanks will be painted for corrosion protection. Describe how the coating will be evaluated and maintained throughout its service life to ensure integrity of the tank and prevent possible contamination of the fuel oil with corrosion products and coating debris.

(d) Subsection 9.5.4.5.2 of the Bellefonte COL states that diesel fuel oil from the storage tanks is sampled and tested. What parameters of the stored oil are monitored, and what are the acceptance criteria? If these criteria or the acceptable values differ from those in RG 1.137 or the Standard Technical Specifications for operating plants, provide the basis for the difference.

(e) For testing new fuel oil before adding it to the storage tank, your application proposes a limit for insolubles of 20 mg/L and a testing interval of 92 days. Discuss the basis for proposing these values rather than the standard TS values of 10 mg/L and 31 days. (f) How is the fuel oil test program formalized to ensure it is implemented? For example, is it an operational program?

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From: Gregory Makar

Created By: Gregory.Makar@nrc.gov

Recipients:

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