

## BellBendCOLPEm Resource

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**From:** Canova, Michael  
**Sent:** Thursday, June 28, 2012 3:27 PM  
**To:** 'Sgarro, Rocco R'; 'melanie.Frailer@unistarnuclear.com'; Woodring, Kathryn L; Kirkwood, Jon K  
**Cc:** BellBendCOL Resource; Segala, John; Vrahoretis, Susan; Clark, Phyllis; Goldin, Laura; Stutzcage, Edward; Sampson, Michele  
**Subject:** RE: Bell Bend COLA - FINAL Request for Information No. 116 (RAI No. 116)- RPAC 6473  
**Attachments:** Final RAI Letter 116 RPAC 6473.doc

Attached is RAI No. 116 for the Bell Bend COL Application. [Based on our telephone call on this RAI 6/25/12 and](#) per your discussion on [6/27/2012](#), we understand that you have no further questions on this RAI. You are requested to respond by [August 10](#), 2012. If additional time is required to respond, please inform me of your proposed schedule your earliest opportunity.

If you have any questions, please contact me.

*Michael A. Canova*

Project Manager - Bell Bend COL Application  
Docket 52-039  
EPR Project Branch  
Division of New Reactor Licensing  
Office of New Reactors  
301-415-0737

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**Subject:** RE: Bell Bend COLA - FINAL Request for Information No. 116 (RAI No. 116)-  
RPAC 6473  
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**Received Date:** 6/28/2012 3:27:22 PM  
**From:** Canova, Michael

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**Post Office:** HQCLSTR01.nrc.gov

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Application Revision 3

6/27/2012

Bell Bend  
PPL Bell Bend LLC.  
Docket No. 52-039

SRP Section: 12.03-12.04 - Radiation Protection Design Features  
Application Section: FSAR Section 12.3

QUESTIONS for Radiation Protection & Accident Consequences Branch (RPAC)

Request for Additional Information No. 6473

12.03-12.04-4

10 CFR 20.1301 requires that the total effective dose equivalent to individual members of the public does not exceed 100 mrem/year.

10 CFR 20.1201 requires that the total effective dose equivalent to workers does not exceed 5 rem/year.

COL Item 12.3.5.1 states that, "A COL applicant that references the U.S. EPR design certification will provide site specific information on estimated annual doses to construction workers in a new unit construction area as a result of radiation from onsite radiation sources from the existing operating plant(s). This information will include bases, models, assumptions, and input parameters associated with these annual doses."

In response to COL Item 12.3.5.1, the Applicant provided estimated dose rate information for Bell Bend construction workers who may be exposed to radiation sources from the nearby Susquehanna Steam Electric Station, Units 1 and 2 (SSES) during construction of Bell Bend. The collective dose to construction workers during the estimated period of construction (2012 to 2017) is identified in FSAR Table 12.3-14. The estimated total dose rate to workers is estimated to be 6.18 person-rem. The Applicant determined that one of the sources of radiation to construction workers from SSES was the independent spent fuel storage installation (ISFSI) at SSES. The expected construction period for Bell Bend, identified in FSAR Revision 3, Chapter 12, is from 2012 to 2017. Since the loading of the ISFSI increases over time, the ISFSI dose rate contribution to the construction worker also increases, and will be greatest at the end of this time period (2017). However, the current estimated completion date of plant construction provided in Part 1, Section 1.4 "Requested Licenses and Authorized Uses", of Revision 3 of the Bell Bend Application is December 2018. Please update the construction worker dose estimates in FSAR Section 12.3.5 to include construction worker dose rate information for the new estimated plant construction period. If the December 2018 estimate for completion of plant construction is no longer accurate please provide the updated estimated completion date for plant construction and update the construction worker dose rate estimates accordingly, or provide bounding dose rate information, assuming a full ISFSI.