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November 18, 2010

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**BELL BEND NUCLEAR POWER PLANT
REVISED RESPONSE FOR RAI 84,
QUESTION 09.02.05-14, FSAR
CHAPTER 9
BNP-2010-293 Docket No. 52-039**

- References:
- 1) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information Final Letter No. 84 (RAI No. 84) with Revision – SBPA -3990, e-mail dated March 23, 2010
 - 2) R. Sgarro (PPL Bell Bend, LLC) to U.S. Nuclear Regulatory Commission, BNP-2010-096, “Partial Response for RAI 84 and Request for Extension”, dated May 3, 2010

The purpose of this letter is to provide a revised response to a request for additional information (RAI) question identified in the referenced NRC correspondence to PPL Bell Bend, LLC (PPL). RAI 84 Question 09.02.05-14 addresses the Ultimate Heat Sink as discussed in Chapter 9.2.5 of the Final Safety Analysis Report (FSAR) and submitted in Part 2 of the Bell Bend Nuclear Power Plant Combined License Application (COLA).

Reference 2 provided our response to RAI No. 84 Question 09.02.05-14. Portions of the response for Question 09.02.05-14 are being revised to include a modified response relative to the U.S. EPR FSAR Tier 1 and Tier 2 information.

The enclosure provides our revised response to RAI 84 Question 09.02.05-14. The revisions to the previously provided responses are identified with underscored text in the enclosure. Portions of the previous RAI Question 09.02.05-14 response which are not impacted by this revised response are noted in the enclosure.

The responses include revised COLA text and the BBNPP COLA will be updated in a future revision to include these changes. The commitment to update the COLA with these changes is the only new regulatory commitment contained in this letter.

If you have any questions, please contact the undersigned at 570.802.8102.

D102
NR0

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 18, 2010

Respectfully,



Rocco R. Sgarro

RRS/kw

Enclosure: As stated

cc: (w/o Enclosures)

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Enclosure

Revised Response to NRC Request for Additional Information No. 84,
Question 09.02.05-14
Bell Bend Nuclear Power Plant

Question 09.02.05-14:

The staff reviewed the site-specific TS requirements that are proposed for ESWEMS in Part 4 of the COL application to confirm that they adequately reflect the information provided in Bell Bend FSAR Section 9.2.5 and to confirm that the TS Basis accurately represents the TS requirements that are proposed. The staff found that the proposed TS requirements appear to be incomplete and not entirely consistent with Standard Technical Specification requirements. Consequently, additional information is needed and the Bell Bend FSAR and TS requirements need to be revised accordingly to address the following items:

- If long-term cooling capability of the ESWS (heat exchangers and cooling towers) relies upon certain water quality specifications, TS requirements need to be established to specify appropriate actions and surveillance requirements to ensure that the heat removal function can be performed over the 30 day post-accident period as assumed. This is related to **RAI 9.2.5-05 (ID 3990/15471)**.
- While the pond level requirement that is proposed is consistent with the description in Bell Bend FSAR Section 9.2.5, the basis for this level has not been adequately described in FSAR Section 9.2.5. This is related to **RAI 9.2.5-04 (ID 3990/15470)**.
- The basis for the existing surveillance requirement that specifies a minimum makeup water flow rate of 300 gpm needs to be described in Bell Bend FSAR Section 9.2.5. This is related to **RAI 9.2.5-04 (ID 3990/15470)**.
- Because the ESWEMS is normally in standby mode, the frequency of surveillance flow testing should be commensurate with systems that are normally in standby mode; once every 24 months is not appropriate. Also, in addition to periodically verifying valve positions, surveillance requirements are needed to periodically verify that the system has not drained, and to confirm that instrumentation and set points for actuation of automatic functions and annunciation are within calibration.
- A surveillance requirement is needed to periodically inspect and clean the intake bay bar screens, and to inspect for silt buildup.
- The description of the ESWEMS that is provided in the background section to replace the first set of bracketed information is incomplete in that it does not include the recirculation valve, instruments and controls, and associated piping.
- The description of the ESWEMS that is provided in the LCO section to replace the bracketed text needs to be revised to include the strainer.

Bullet 1:

Response and COLA Impact: No changes.

Bullet 2:

Response and COLA Impact: No changes.

Bullet 3:

Response (Revised):

The ESWEMS flow rate Surveillance Requirement (SR) identified in Revision 0 of the BBNPP COLA was relocated to the U.S. EPR Generic Technical Specifications as SR 3.7.19.5 in U.S. EPR FSAR Revision 1 (ML091671705 and ML091671718) and is no longer in the BBNPP Plant Technical Specifications. The 300 gpm flow rate to the UHS cooling tower basin Surveillance Requirement identified in SR 3.7.19.5 is based on the assumed system losses based on the parameters identified in U.S. EPR FSAR 9.2.5. This Section identifies the design parameters for the UHS which are based on U.S. EPR meteorological condition assumptions. A site-specific UHS analysis was conducted for BBNPP, using maximum evaporative losses between 72 hours and 30 days post-accident, with the ambient meteorological conditions matching the historical worst case 30-day period as described in BBNPP FSAR 9.2.5.1. The results of the site-specific analysis identify that only 200 gpm supply is required to the UHS cooling tower basins in order to maintain appropriate basin level, which in turn provides the necessary NPSH for the ESWS pumps. An additional system flow rate consideration is for the ESWEMS self cleaning strainers, which are equipped with an intermittent automatic blowdown function. This intermittent blowdown is calculated to be 110 gpm and this flow rate is added to the evaporative loss makeup flow rate. The minimum 310 gpm makeup water flow is based on 200 gpm for UHS cooling tower evaporation and a simultaneous 110 gpm backwash flow through the automatic strainer.

The BBNPP COLA will be revised to identify that a departure and an exemption will be taken to the U.S. EPR Tier 1 Section 2.7.11.8 and Tier 2 Table 9.2.5-2, and Generic Technical Specification SR 3.7.19.5 and Bases B 3.7.19 and a new BBNPP Plant Technical Specification Surveillance Requirement will be added to incorporate the revised ESWEMS flow needed to the UHS cooling tower basins.

COLA Impact (Revised):

Bullet 3: The BBNPP FSAR will be revised as follows.

1.8.2 Departures

{The list of departures from the U.S. EPR is as follows:

Engineered Fill Soil Maximum Unit Weight – The proposed Category 1 Fill and Backfill material exceed the U.S. EPR specified unit weight.	FSAR 2.5.4.2, 2.5.4.5, 2.5.5, and 3.8.4.3
Toxic Gas detection and Isolation	FSAR 3.11, 6.4, 9.4.1 and 14.2.12
<u>Ultimate Heat Sink (UHS) Makeup Flow Rate</u>	<u>FSAR 9.2.5, FSAR 16 (COLA Part 4)</u>

9.2.5 Ultimate Heat Sink

No departures or supplements. This section of the U.S. EPR FSAR is incorporated by reference with the following supplements and departure as described in the following sections.

9.2.5.1 Design Basis

The ESWEMS, schematically represented in Figure 9.2-3, provides up to 400 gpm (1,515 l/min lpm) of water to each operating ESWS cooling tower basin to replenish ESWS inventory losses due to evaporation, drift, and incidental system leakage starting 72 hours after an accident. The losses due to evaporation are 200 gpm and strainer backwash flows are 110 gpm. The evaporative loss requires a makeup flow rate of 200 gpm to the UHS cooling tower basins vice the 300 gpm identified in the U.S. EPR Generic Technical Specifications. The BBNPP COLA Part 4, Plant Specific Technical Specifications, and COLA Part 7, Departures and Exemption Requests, reflect this different flow rate. 72 hours after a Design Basis Accident, the losses due to evaporation are 200 gpm (757 lpm) and intermittent strainer backwash flows are 110 gpm (416 lpm). The maximum evaporative loss requires a makeup flow rate of 200 gpm (757 lpm) to the UHS cooling tower basins vice the 300 gpm (1,136 lpm) identified in the U.S. EPR Tier 1 Section 2.7.11.8 and Tier 2 FSAR Table 9.2.5-2 and U.S. EPR FSAR Chapter 16, Generic Technical Specifications. This different required flow rate is also identified in BBNPP FSAR Chapter 16 and BBNPP COLA Part 4, Technical Specifications. The departure from Tier 2 information and the exemption request from Tier 1 information are discussed in BBNPP COLA Part 7, Departures and Exemption Requests. Drift, UHS cooling tower basin seepage and leakage flow rates are negligible with respect to pump capacity. This quantity is based on maximum evaporative losses 72 hours post-accident, with the ambient conditions matching the historical worst case consecutive 27 day period.

16.0 TECHNICAL SPECIFICATIONS

This COL Item is addressed as follows:

{The U.S. EPR Generic Technical Specifications and Bases, provided in Chapter 16 of the U.S. EPR FSAR are incorporated by reference with the following departure:

The U.S. EPR FSAR Tier 1 Section 2.7.11.8 and Tier 2, Table 9.2.5-2-Ultimate Heat Sink Design Parameters, identify that the minimum required site-specific emergency makeup water flow to the UHS is 300 gpm. Additionally, the U.S. EPR FSAR Tier 2 Generic Technical Specifications LCO 3.7.19 Surveillance Requirement SR 3.7.19.5 and corresponding Bases B 3.7.19 require verification of the ability to supply makeup water to each UHS basin at ≥ 300 gpm every 24 months. The BBNPP site-specific design for the UHS makeup water pump requires 200 gpm to the UHS basin based on site-specific adverse historical meteorological conditions after 72 hours post Design Basis Accident (DBA). The departure from Tier 2 information and the exemption request from Tier 1 information are discussed in BBNPP FSAR 9.2.5 and BBNPP COLA Part 7, Departures and Exemption Requests.

The BBNPP COLA, Part 4, Technical Specifications and Bases, will be revised as follows:
No changes.

The BBNPP COLA, Part 7, Departures and Exemption Requests, will be revised as follows:

1.1 DEPARTURES

The following Departures are described and evaluated in detail in this report:

1.1.9 Engineer Fill Soil Maximum Unit Weight

1.1.10 Ultimate Heat Sink (UHS) Makeup Flow Rate

1.1.10 Ultimate Heat Sink (UHS) Makeup Flow Rate

1.1.10.1 Affected U.S. EPR FSAR Sections: Tier 1 Section 2.7.11.8, Tier 2 Table 9.2.5-2, Chapter 16 (Generic Technical Specification LCO 3.7.19 and Bases B 3.7.19)

1.1.10.2 Summary of Departure:

The U.S. EPR FSAR Tier 1 Section 2.7.11.8, Interface Requirements, and Tier 2, Table 9.2.5-2-Ultimate Heat Sink Design Parameters, identify that the minimum required site-specific emergency makeup water flow to the UHS is 300 gpm. Additionally, the U.S. EPR FSAR Tier 2 Generic Technical Specifications LCO 3.7.19 Surveillance Requirement SR 3.7.19.5 and corresponding Bases B 3.7.19 require verification of the ability to supply makeup water to each UHS basin at ≥ 300 gpm every 24 months. The BBNPP site-specific design for the UHS makeup water pump requires a flow rate of 200 gpm to the UHS basin to maintain basin level based on the worst case 27 day site-specific historical meteorological conditions after 72 hours post-Design Basis Accident (DBA).

1.1.10.3 Scope/Extent of Departure:

This Departure is identified in BBNPP FSAR 1.8-2, FSAR 9.2.5, FSAR 16 and COLA Part 4, Technical Specifications.

1.1.10.4 Departure Justification:

The U.S. EPR FSAR Tier 2, Table 9.2.5-2, Ultimate Heat Sink Design Parameters, identifies that the required site-specific emergency makeup water flow to the UHS is 300 gpm. Additionally, the Generic Technical Specifications for the U.S. EPR Ultimate Heat Sink in Chapter 16 of the U.S. EPR FSAR, Surveillance Requirement 3.7.19.5, requires verification

of the ability to supply makeup water to each UHS basin at ≥ 300 gpm every 24 months. Bases B 3.7.19 provides the basis for the specified makeup flowrate to ensure that sufficient Net Positive Suction Head (NPSH) can be maintained to operate the ESWS pumps following the first 3 days post LOCA for the assumed worst case meteorological conditions from the U.S. EPR Site Design Envelope.

A site-specific calculation was performed to determine the makeup flow rate to the UHS cooling towers based on the requirements of Regulatory Guide 1.27 after 72 hours post-DBA. The large break loss of coolant accident heat loads and the site-specific worst case consecutive 27 day period of meteorological data for evaporation were used to develop evaporation rates for the UHS cooling towers as required by Regulatory Guide 1.27. This site-specific analysis determined that only 200 gpm are necessary to compensate for evaporative losses when using the worst case 27 day meteorology. The 200 gpm flow rate to the UHS basins during the 27 day period ensures that basin level is maintained to provide adequate cooling inventory and NPSH for the ESWS pumps. The BBNPP site-specific 400 gpm UHS makeup water pump capacity rate includes 200 gpm for the maximum UHS cooling tower evaporation rate and 110 gpm for intermittent strainer backwash flow. UHS cooling tower drift and cooling tower basin seepage were found to be negligible with respect to pump sizing. The calculated flow rate includes a friction factor of 0.017 and an aging factor of 1.2. This results in approximately 29% margin for the UHS makeup flow rate.

1.1.10.5 Departure Evaluation:

This Departure from the U.S. EPR FSAR Tier 2 information does not change the UHS basin level needed to maintain NPSH for the ESWS pumps. The UHS makeup flow rate calculated to maintain basin inventory and ESWS pump NPSH for site-specific adverse meteorology during the post-DBA 27 day time period is less than prescribed in the U.S. EPR FSAR and the U.S EPR stated value of ≥ 300 gpm is not required based on the site-specific analysis for BBNPP. Therefore, this Departure does not:

1. Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific FSAR;
2. Result in more than a minimal increase in the likelihood of occurrence of malfunction of a structure, system or component (SSC) important to safety and previously evaluated in the plant-specific FSAR;
3. Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific FSAR;
4. Result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety previously evaluated in the plant-specific FSAR;

5. Create a possibility for an accident of a different type than any evaluated previously in the plant-specific FSAR;
6. Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific FSAR;
7. Result in a design basis limit for a fission product barrier as described in the plant-specific FSAR being exceeded or altered; or
8. Result in a departure from a method of evaluation described in the plant-specific FSAR used in establishing the design bases or in the safety analyses.

This Departure does not affect resolution of a severe accident issue identified in the plant-specific FSAR.

1.2 EXEMPTION REQUESTS

8. ~~Generic Technical Specifications and Bases-Ultimate Heat Sink (UHS)
Ultimate Heat Sink Make Up Flow Rate~~

1.2.8 ~~GENERIC TECHNICAL SPECIFICATIONS AND BASES-ULTIMATE HEAT SINK (UHS)~~

1.2.8.1 ~~Applicable Regulation: 10 CFR Part 52~~

~~The U.S. EPR FSAR Tier 2 Generic Technical Specifications LCO 3.7.19 requires verification of the ability to supply makeup water to each UHS basin at \geq 300 gpm every 24 months. The BBNPP site-specific design for the UHS makeup water pump requires \geq 200 gpm to the UHS basin based on site-specific historical meteorological conditions after 72 hours post DBA.~~

~~Pursuant to 10 CFR 50.12 and 10 CFR 52.7, PPL Bell Bend, LLC requests an exemption from compliance with the U.S. EPR FSAR Generic Technical Specification requirements associated with the UHS Makeup Flow.~~

1.2.8.2 ~~Discussion:~~

~~The Generic Technical Specifications for the U.S. EPR Ultimate Heat Sink are in Chapter 16 of the U.S. EPR FSAR. Surveillance Requirement 3.7.19.5 requires verification of the ability to supply makeup water to each UHS basin at \geq 300 gpm every 24 months. The basis for the specified makeup flowrate ensures that sufficient NPSH can be maintained to operate the ESWS pumps following the first 3 days post LOCA for the assumed worst case meteorological conditions from the U.S. EPR Site Design Envelope.~~

~~A site-specific calculation was performed to determine the minimum makeup flow rate to the UHS cooling towers based on the requirements of Regulatory Guide 1.27 after 72 hours post LOCA. The large break loss of coolant accident heat loads and the site-specific worst case consecutive 27 day period of meteorological data for evaporation were used to develop evaporation rates for the proposed UHS cooling towers as required by Regulatory Guide 1.27. This site-specific analysis determined that only 200 gpm are necessary to compensate for evaporative losses when using the 27 day worst case meteorology.~~

~~The BBNPP site-specific 400 gpm UHS makeup water pump capacity rate includes 200 gpm for the maximum UHS cooling tower evaporation rate and 140 gpm for intermittent strainer backwash flow. UHS cooling tower drift and cooling tower basin seepage were found to be negligible with respect to pump sizing. The calculated flow rate includes a friction factor of 0.017 and an aging factor of 1.2. This results in approximately 20% margin. Therefore, this change will not result in a significant decrease in the level of safety otherwise provided by the design described in the U.S. EPR FSAR.~~

~~The exemption is not inconsistent with the Atomic Energy Act or any other statute. As such, the requested exemption is authorized by law.~~

~~The change does not relate to security and does not otherwise pertain to the common defense and security. Therefore, the requested exemption will not endanger the common defense and security.~~

~~This requested exemption does not require a change in the design described in the U.S. EPR FSAR. The special circumstance necessitating the request for exemption is that it has been demonstrated via site-specific analysis that the 200 gpm makeup flow to the UHS cooling tower basin is sufficient to make up for evaporative losses for the site-specific conditions. Therefore, application of the rule is not necessary to achieve the underlying purpose of the rule.~~

~~Consistent with 10 CFR 50.12(a), a special circumstance is present that requires an exemption in that the BBNPP site-specific UHS Makeup Pump is not required to meet the U.S. EPR Generic Technical Specification stipulated 300 gpm makeup flow to maintain UHS cooling tower basin level, which in turn, maintains NPSH for the ESW pumps. Additionally, calculations confirm that the site-specific pump flow rate does not affect the safety-related function of the safety-related SSCs of the U.S. EPR. As such, application of the regulation for this particular circumstance would not serve the underlying purpose of the rule and is not required to achieve the underlying purpose of the rule.~~

~~For these reasons, PPL Bell Bend, LLC requests approval of the requested exemption from compliance with the U.S. EPR FSAR Generic Technical Specifications requirement associated with UHS Makeup Flow.~~

1.2.8 ULTIMATE HEAT SINK (UHS) MAKEUP FLOW RATE

1.2.8.1 Applicable Regulation: 10 CFR Part 52

The U.S. EPR FSAR Tier 1 Section 2.7.11.8, Interface Requirements, requires that the required site-specific emergency makeup water flow to the UHS is 300 gpm. Additionally, the U.S. EPR FSAR Tier 2 Generic Technical Specifications LCO 3.7.19 Surveillance Requirement SR 3.7.19.5 and corresponding Bases B 3.7.19 require verification of the ability to supply makeup water to each UHS basin at ≥ 300 gpm every 24 months. The BBNPP site-specific design for the UHS makeup water pump requires only ≥ 200 gpm to the UHS basin based on site-specific adverse historical meteorological conditions after 72 hours post DBA.

Pursuant to 10 CFR 50.12 and 10 CFR 52.7, PPL Bell Bend, LLC requests an exemption from compliance with the U.S. EPR FSAR Tier 1, Section 2.7.11.8 and Tier 2 Generic Technical Specification requirements associated with the UHS site-specific makeup flow.

1.2.8.2 Discussion:

The U.S. EPR FSAR Tier 1 Section 2.7.11.8, Interface Requirements, stipulate that the required site-specific emergency makeup water flow to the UHS is 300 gpm. The Generic Technical Specifications (GTS) for the U.S. EPR Ultimate Heat Sink are in Chapter 16 of the U.S. EPR FSAR. Surveillance Requirement 3.7.19.5 requires verification of the ability to supply makeup water to each UHS basin at ≥ 300 gpm every 24 months. The GTS Bases (B 3.7.19) for the specified makeup flowrate ensures that sufficient NPSH can be maintained to operate the ESWS pumps following the first 3 days post LOCA for the assumed worst case meteorological conditions from the U.S. EPR Site Design Envelope.

A site-specific calculation was performed to determine the makeup flow rate to the UHS cooling towers based on the requirements of Regulatory Guide 1.27 after 72 hours post-LOCA. The large break loss of coolant accident heat loads and the site-specific worst case consecutive 27 day period of meteorological data for evaporation were used to develop evaporation rates for the proposed UHS cooling towers as required by Regulatory Guide 1.27. This site-specific analysis determined that only 200 gpm are necessary to compensate for evaporative losses when using the 27 day worst case meteorology.

The BBNPP site-specific 400 gpm UHS makeup water pump capacity rate includes 200 gpm for the maximum UHS cooling tower evaporation rate and 110 gpm for intermittent strainer backwash flow. UHS cooling tower drift and cooling tower basin seepage were found to be negligible with respect to pump sizing. The calculated flow rate includes a friction factor of 0.017 and an aging factor of 1.2. This results in approximately 29% margin. The ability to maintain UHS basin inventory at a level that maintains sufficient inventory for post-DBA cooling and to maintain NPSH for the ESW pumps while maintaining system margin at a different UHS makeup flow rate has no impact on safety. Therefore, this change will not result in a significant decrease in the level of safety otherwise provided by the design described in the U.S. EPR FSAR and will not present an undue risk to the public health and safety.

The exemption is not inconsistent with the Atomic Energy Act or any other statute. As such, the requested exemption is authorized by law.

The change does not relate to security and does not otherwise pertain to the common defense and security. Therefore, the requested exemption is consistent with the common defense and security.

This requested exemption does not require a change in the design described in the U.S. EPR FSAR.

Consistent with 10 CFR 50.12(a)(2)(ii), the special circumstance necessitating the request for exemption is that it has been demonstrated via site-specific analysis that the 200 gpm makeup flow to the UHS cooling tower basin is sufficient to maintain UHS basin inventory for ESW pump NPSH and to make up for evaporative losses for the site-specific adverse meteorological conditions. The U.S. EPR FSAR Tier 1 Section 2.7.11.8 and Generic Technical Specification 3.7.19 and Bases B 3.7.19 stipulated ≥ 300 gpm makeup flow to the UHS basins is inconsistent with the site-specific analyses for BBNPP. As such, application of the regulation for this particular circumstance is not necessary to achieve the underlying purpose of the rule.

For these reasons, PPL Bell Bend, LLC requests approval of the requested exemption from compliance with the U.S. EPR FSAR Tier 1 Section 2.7.11.8 and Generic Technical Specification LCO 3.7.19 SR 3.7.19.5 and Bases B 3.7.19 requirements associated with UHS makeup flow rate.

Bullet 4:

Response (Revised):

The ESWEMS flow rate Surveillance Requirement (SR) identified in Revision 0 of the BBNPP COLA was relocated to the U.S. EPR Generic Technical Specifications as SR 3.7.19.5 in COLA Revision 1 and is no longer in the BBNPP Plant Technical Specifications. However, in response to RAI 84, Question 09.02.05-14 (Bullet 3), this Surveillance Requirement is being modified and included into the Plant Technical Specifications in COLA Part 4 as Surveillance Requirement 3.7.19.5 and a departure and an exemption is are being requested to modify this Generic Technical Specification Surveillance Requirement. The 24 month Frequency for verification of the minimum forward flow to the cooling tower basins is appropriate as it is consistent with the ESWEMS pump testing requirements identified in the In-Service Test Program (IST) and a periodic refueling interval. Additionally, the capability of the ESWEMS pump to provide the required flow will be tested on a quarterly (every 92 days) basis per the IST Program to demonstrate that the ESWEMS pump maintains the ability to pump at least 200 gpm through the pump recirculation line to the ESWEMS Retention Pond. The IST Program requirements for ESWEMS pump testing are located in BBNPP FSAR 3.9.6. The BBNPP COLA Part 4 will be revised as shown below.

The response to RAI 68, Question 16-3, which was submitted in letter BNP-2010-071, dated March 17, 2010 (ML100780390), identifies additional ESWEMS surveillance requirements for verification of manually operated valve positions, automatic valve actuation features, strainer operation and verification that the intake is free of debris.

Bullet 4:

COLA Impact: No changes.

Bullet 5:

Response and COLA Impact: No changes.

Bullet 6:

Response and COLA Impact: No changes.

Bullet 7:

Response and COLA Impact: No changes.