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March 19, 2010

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

BELL BEND NUCLEAR POWER PLANT
PARTIAL RESPONSE TO RAI No. 79
AND REQUEST FOR EXTENSION
BNP-2010-085 Docket No. 52-039

References: 1) M. Canova (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend COLA – Request for Information No. 79 (RAI No. 79) – SEB1-2507, email dated February 17, 2010.

2) BNP-2009-400, T. Harpster (PPL Bell Bend LLC) to US NRC Document Control Desk, "BBNPP Schedule Update," dated December 8, 2009.

The purpose of this letter is to respond to portions of the request for additional information (RAI) identified in the referenced NRC correspondence to PPL Bell Bend, LLC (PPL) and request an extension for the remainder of the questions. This RAI addresses Other Seismic Category I Structures as discussed in Chapter 3 of the Final Safety Analysis Report (FSAR) and submitted in Part 2 of the Bell Bend Nuclear Power Plant (BBNPP) Combined License Application (COLA).

Enclosure 1 provides our response to Questions 03.08.04-3, 03.08.04-7, 03.08.04-10, 03.08.04-11, 03.08.04-12, 03.08.04-18, 3.08.04-21, 03.08.04-23 and 03.08.04-24.

As the staff is aware, PPL is revising the footprint of the proposed BBNPP within the existing project boundary. This re-location may change site-specific characteristics, such as Ground Motion Response Spectra (GMRS) and soil properties.

The following questions from RAI No. 79 are anticipated to be impacted by the re-location of the plant footprint:

03.08.04-8
03.08.04-9
03.08 04-20

This re-location will result in supplemental COLA information being submitted to the NRC, and will include information necessary to address these questions regarding FSAR Section 3.8. PPL is currently in the process of updating the schedule information previously provided to the staff in Reference 2, and will update the staff upon completion.

D079
NRO

The following questions from RAI No. 79 require additional analysis and development:

03.08.04-1
03.08.04-2
03.08.04-4
03.08.04-5
03.08.04-6
03.08.04-13
03.08.04-15
03.08.04-16
03.08.04-17
03.08.04-19
03.08.04-22
03.08.04-25

PPL Bell Bend, LLC will provide a response to these questions by April 15, 2010.

Should you have questions or need additional information, please contact the undersigned at 570.802.8102.

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

Executed on March 19, 2010

Respectfully,

Rocco R. Sgarro

RRS/kw

Enclosure: As stated

cc: (w/o Enclosures)

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Enclosure 1

Response to NRC Request for Additional Information No. 79
Questions 03.08.04-3, 03.08.04-7, 03.08.04-10, 03.08.04-11, 03.08.04-12, 03.08.04-18, 3.08.04-21, 03.08.04-23, 03.08.04-24
Bell Bend Nuclear Power Plant

RAI 79
Question 03.08.04-3:

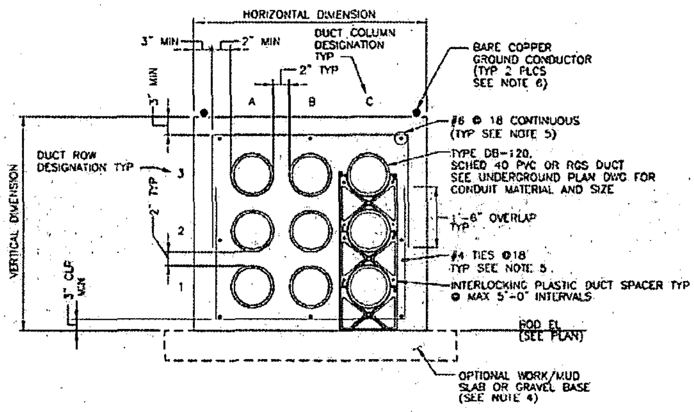
"(SRP Section 3.8.4), the applicant states in the third paragraph (Page 3-179) that "Class 1E conduits located outside the building envelope are buried in Seismic Category I duct banks. There are two material types of conduits used: 1) polyvinyl chloride (PVC); or 2) steel. Duct banks are encased in reinforced concrete as discussed in Section 3.7.3.12."

The applicant is requested to provide the following information:

(a) Describe the concrete duct bank enclosures, and show typical reinforcing steel details and other relevant information.
(b) In BBNPP COL FSAR, Subsection 3.7.3.12, ASCE 4-98 is listed as a reference. In the BBNPP COL FSAR the publication date of this document is mistakenly listed to be 1986 and the document is referred as ASCE, 1986. ASCE 4-98 was published in 1999 not 1986. Correct this mistake.

Response:

(a) Class 1E duct bank is an engineered design, which is typically square or rectangular concrete enclosure. PVC conduits are embedded inside the enclosure. However, conduit containing cables sensitive to electrical noise may be rigid galvanized steel (RGS) for the entire run. A typical enclosure cross section, including its reinforcement is shown below:



TYPICAL CONCRETE ENCASED DUCT BANK CONSTRUCTION

(b) The BBNPP FSAR was revised to change the reference year of ASCE 4-98 to the 2000 version throughout the COLA. The affected Chapters were FSAR Chapters 2 and 3. This change is reflected in BBNPP FSAR Revision 2.

COLA Impact:

The BBNPP COLA will not be revised as a result of this response.

RAI 79
Question 03.08.04-7:

For COL information item COL 3.8(6) in the BBNPP COL FSAR, Subsection 3.8.4.1.9, "Buried Pipe and Pipe Ducts" (SRP Section 3.8.4), the applicant states in the last sentence of the last paragraph (BBNPP FSAR page 3-180) that "As an alternate, concrete may be used as discussed in Section 3.7.3.12."

The staff is unable to find any discussion of the use of concrete in Section 3.7.3.12. What are the criteria for using concrete? Where is concrete used on the BBNPP buried utilities?

Response:

FSAR Section 3.8.4.1.9 discusses buried pipe and pipe ducts. As described in this Section, buried pipe ducts are not used at BBNPP. The discussion and standards related to concrete use in FSAR Section 3.7.3.12 are restricted to reinforced concrete duct banks. BBNPP FSAR Section 3.8.4.1.9 will be revised to remove the reference to FSAR Section 3.7.3.12.

COLA Impact:

The BBNPP FSAR will be revised as follows:

3.8.4.1.9 Buried Pipe and Pipe Ducts

Buried piping is buried directly in the soil (i.e., without concrete encasement) unless detailed analysis indicates that additional protection is required. The depth of cover is sufficient to provide protection against frost, surcharge effects, and tornado missiles. Appropriate bedding material is provided beneath the pipe. Soil surrounding the pipe is typically compacted structural backfill. ~~As an alternate, concrete may be used as discussed in Section 3.7.3.12.~~}

RAI No. 79
Question 03.08.04-10:

For COL information item COL 3.8 (7) in the BBNPP COL FSAR, Subsection 3.8.4.3.1,"Design Loads" (SRP Section 3.8.4), the applicant specifies design loads that are to be considered in the design of seismic Category I structures (including the Retention Pond). Specifically, under "Extreme Environmental Loads", The FSAR specifies loads from tornado winds, tornado-generated missiles, the Safe-Shutdown Earthquake, wave surges in the Retention Pond, and pressures of 1.0 psi due to postulated explosions from nearby facilities. In Subsection 2.2.2.7.2 of the BBNPP COL , "Aircraft and Airway Hazards," the 3rd and 4th paragraphs (p.2-61 and 2-62) state: "Based on the study of design features, such as hardened construction, shielding by other Category I buildings, and/or space separation to prevent losing needed function in one aircraft accident, that are incorporated into the design of most Category I Structures (documented in the various subsections of Section 3.8.1 of U.S. EPR FSAR), these Category I structures are not vulnerable to aircraft hazard:

- Reactor Containment Building,
- Fuel Handling Building,
- Safeguard Buildings, and
- Emergency Power Generation Buildings.

Therefore, the only Category I Structure requiring specific assessment for aircraft hazards is the ESWEMS Pumphouse."

The Retention Pond does not have heavily-reinforced concrete or any other hardened features that would protect the Retention Pond from the effects of an aircraft impact.

The applicant is requested to demonstrate that the safety function of the Retention Pond is not adversely affected by postulated aircraft crash impact loads.

Response

The Aircraft and Airway Hazards in Section 2.2.2.7.2 of the BBNPP COL FSAR, Revision 0 were changed in BBNPP COL FSAR, Revision 2. Regulatory Guide 1.70, Regulatory Guide 1.206, and NUREG-0800 indicate that the risks due to aircraft hazards should be sufficiently low. Further, aircraft accidents that could lead to radiological consequences in excess of the exposure guidelines of 10 CFR 50.34(a)(1) with a probability of occurrence greater than 1.0E-7 per year should be considered in the design of the plant. A Probabilistic Risk Assessment (PRA) of the aircraft hazard at BBNPP has been performed and shows a core damage frequency (CDF) of 9.9E-8/year, less than 1.0E-7/year. The PRA analysis is demonstrably conservative, as it postulates the maximum possible damage to structures that are not hardened for aircraft crash and applies this consequence to all crashes regardless of the size of plane. The aircraft hazard analysis is summarized in the BBNPP COLA FSAR Section 19.1.5.4.4. The PRA analysis has been incorporated into BBNPP COLA FSAR Section 2.2.2.7.2 Revision 2.

COLA Impact

The BBNPP FSAR will not be revised as a result of this response.

RAI 79
Question 03.08.04-11:

For COL information item COL 3.8(7) in the BBNPP COL FSAR, Subsection 3.8.4.3.1, "Design Loads" (SRP Section 3.8.4), the applicant states in the 3rd bullet in the list of Extreme Environmental Loads (Page 3-171) that the stability of slope and the reinforced concrete spillway of the EWSEMS Retention Pond is analyzed and designed to address "Structural impact from tornado generated missiles without compromising the pond safety-related function."

Provide a description of the methods or procedures used to evaluate the effects of missiles on the pond safety-related function. Include a determination of the type of missiles considered and the acceptance criteria used to assess these missile impacts on the safety-related function of the pond

Response:

The ESWEMS Retention Pond is an excavation below the ground surface. Evaluation of impacts from tornado generated missiles on its slope, bottom, and the concrete spillway is included in FSAR Section 3.5.1.4. The impact from tornado generated missiles has no detrimental effect on the pond slope and its concrete spillway. Their safety-related function to retain emergency cooling water is not affected.

<u>Applicable Missiles</u>: The missiles identified as Spectrum I, Region 1 in SRP 3.5.1.4 and as listed in Regulatory Guide 1.76, Table 2 are postulated.

a) A schedule 40 steel pipe
b) An automobile
c) A solid steel sphere

Missiles 'a' and 'c' are postulated as small and rigid missiles while missile 'b' is as a large and soft missile. All missiles are considered impacting the target at maximum impact horizontal speed as shown in Table 2 of Regulatory Guide 1.76. The vertical velocities are equal to 67% of the horizontal velocities.

The barrier design evaluates impact loads assuming the longitudinal axis of the missiles normal to surface of the barrier. Missiles 'a' and 'b' are assumed to impact at normal incidence. Missile 'c' is assumed to impinge upon barrier openings in the most damaging directions to the barrier surface.

All missiles are evaluated for local impacts, which could cause penetration inside the concrete spillway or cohesive layer of the pond, causing perforation and scabbing of the concrete. The design-basis tornado missile spectrum and maximum horizontal speeds are tabulated in Table 2 of Regulatory Guide 1.76.

<u>Methodology and Acceptance Criteria:</u>

1. The pond slope and bottom were assessed for possible strikes of tornado generated missiles to demonstrate that there is enough protection of the pond slope and bottom to preclude the missile penetration of the water retaining barrier (i.e., the cohesive soil), which could result in significant leakage and/or slope

failure. Significant leakage or slope failure could degrade the safety function of the pond.

2. The thickness of the reinforced concrete spillway was evaluated for potential of local damage from tornado generated missiles, which could degrade the retention pond safety function. The depth of penetration in concrete elements was obtained using the modified Petry formula. The concrete spillway must be at least 3 times the depth of the calculated penetration into concrete, which prevents perforation, scabbing, and penetration of the barrier from degrading the pond safety function. Moreover, the global response of the spillway system was assessed assuming the concrete idealized as a slab-on-elastic foundation in absorbing the missile impact.

Summary:

1. The energy dissipation while falling through the water depth reduced the missile striking velocity. The pond slope is protected with 36" thick of cohesive soil below 12" thick bedding and 18" thick rip rap. Assuming a low bounding value of 3000 psf for highly compacted cohesive fill, the calculated depth of penetration inside the fill is small and less than thickness of the cohesive liner. Missiles are prevented from reaching the bed rock and creating a leak in the pond.

2. Missiles "a" and "c" have much less significant mass in comparison to missile "b", the automobile missile. Hence, the automobile is the only missile which can cause significant impact and results in an enveloped response of the concrete spillway. The analysis reveals that the 7.5 inch thickness of reinforced concrete is capable to withstand the missile impact locally and globally within the permissible stresses and ductility. Moreover, the impact from tornado generated missile "b" cannot degrade the 38-foot long concrete spillway, in addition to the 2 feet thick water course, sufficiently to drain the ESWEMS pond to the minimum water level to impact the pond safety function.

COLA Impact:

The BBNPP COLA will not be revised as a result of this response.

RAI 79
Question 03.08.04-12:

For COL information item COL 3.8 (7) of the BBNPP COL FSAR, Subsection 3.8.4.3.2, "Loading Combinations" (SRP Section 3.8.4), the applicant states (Page 3-182) "The following additional factored load combinations apply for reinforced concrete design of the ESEMS Pumphouse: Table 3E.4-1 and Table 3E.4-2 provide the description of the loading combinations and the minimum required Factor of Safety for building stability, respectively."

The applicant is requested to clarify what is meant by the phrase "...additional factored load combinations...". Do Tables 3E.4-1 and Table 3E.4-2 specify all loading combinations, or just "additional combinations"? Does it include aircraft impact loads?

Response:

Subsection 3.8.4.3.2 of BBNPP COL FSAR, Revision 0 referred to Table 3E.4-1 and Table 3E.4-2 which are now Table 3E-1 and Table 3E-2 in BBNPP COL FSAR, Revision 2. The FSAR write-up referred to "following additional factored load combinations." In fact, all load combinations are included in Table 3E-1 and Table 3E-2. The FSAR will be revised to clarify that all load combinations are included in Tables 3E-1 and 3E-2.

The Aircraft Impact Loads were not included. Refer to the response to RAI 03.08.04.-10 for aircraft impact loading.

COLA Impact:

The BBNPP FSAR will be revised as shown:

3.8.4.3.2 Loading Combinations

{The ~~following additional~~ factored load combinations, which apply for reinforced concrete design of the ESWEMS Pumphouse, are provided in~~:~~ Table 3E-1 and Table 3E-2, including ~~provide~~ the description of the loading combinations and the minimum required Factor-of-Safety for building stability, respectively.}

RAI 79
Question 03.08.04-18:

For supplemental information item SUP 3.8 (2) in the BBNPP COL FSAR, Subsection 3.8.4.4.7, "ESWEMS Pumphouse and ESWEMS Retention Pond" (SRP Section 3.8.4), the applicant states in the third paragraph (Page 3-185) that "Figure 3E.4-1 and Figure 3E.4-2 depict the finite element model for the ESWEMS Pumphouse."

Explain what boundary conditions are assumed for these two finite element models. Is there any soil spring assumed in the boundary conditions?

Response:

Subsection 3.8.4.4.7 of BBNPP COL FSAR, Revision 0 referred to Figure 3E.4-1 and Figure 3E.4-2 which are now Figure 3E-1 and Figure 3E-2 in BBNPP COL FSAR, Revision 2. Boundary conditions for supporting elements are demonstrated in the figure below and consistent w/ the description in FSAR 3.7.2.1.2, which stated in-part as follows:

> "The basemat founded on concrete back fill is modeled as roller supports. The building shear keys which are embedded in the Mahantango foundation, are modeled as hinged supports. The supporting media below the apron base is modeled as roller supports."

As shown on Figure 1-1, pinned (hinged) and roller supports were used to idealize the ESWEMS pumphouse founded on concrete backfill and/or on top of Mahantango formation. The soil springs were not used given the rigidity of the concrete backfill and/or Mahantango formation. Hence, rigid supports are considered appropriate.

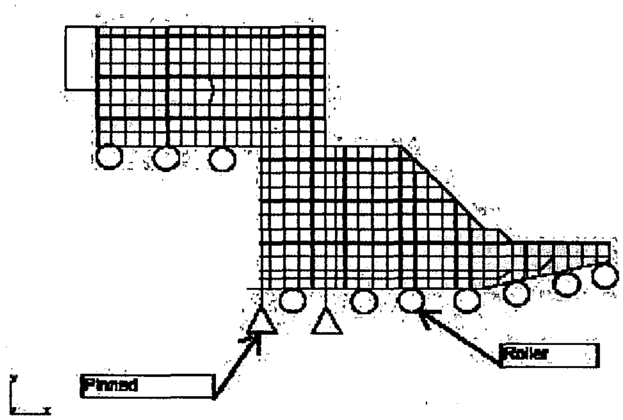


FIGURE 1-1
BOUNDARY CONDITIONS OF THE GT-STRUDL MODEL

COLA Impact:

The BBNPP FSAR will not be revised as a result of this response.

RAI 79
Question 03.08.04-21:

For COL information item COL 3.8 (11) in the BBNPP COL FSAR, Subsection 3.8.4.5, "Structural Acceptance Criteria" (SRP Section 3.8.4), the applicant states in the 3rd paragraph (Page 3-185), in part: "The use of ACI349-01, in lieu of ACI 349-97 (ACI, 1997) as invoked in Subsection 4.9.4.15 of IEEE 628-2001 (R2006), is to provide a consistent design basis with all other Seismic Category I structures."

The applicant is requested to describe the significant differences between ACI 349-01 and ACI 349-97 as they may pertain to the design of buried electrical duct banks and piping, and to provide the rationale that justifies use of the ACI 349-01 in lieu of ACI 349-97.

Response:

The U.S. EPR FSAR Section 3.8.4.4.5 identifies the code of record for concrete components of buried items as ACI 349-01, including the exceptions specified in Regulatory Guide (RG) 1.142. ACI 349-01 will be the design code of record as identified in FSAR 3.7.3.12 and 3.8.4.5. The BBNPP FSAR will be revised to remove the reference to ACI 349-97 as shown below.

COLA Impact:

The BBNPP FSAR will be revised as follows:

3.7.3.12 Buried Seismic Category I Piping, Conduits, and Tunnels

The seismic analysis and design of Seismic Category I buried reinforced concrete electrical duct banks is in accordance with IEEE 628-2001 (R2006) (IEEE, 2001), ASCE 4-98 (ASCE, 2000) and ACI 349-01 (ACI, 2001a), including supplemental guidance of Regulatory Guide 1.142 (NRC, 2001). ~~The use of ACI349-01, in lieu of ACI 349-97 (ACI, 1997) as invoked in Subsection 4.9.4.15 of IEEE 628-2001 (R2006), is to provide a consistent design basis with all other Seismic Category I structures.~~

3.7.3.15 References

{~~**ACI, 1997.** Code Requirements for Nuclear Safety-Related Concrete Structures, ACI 349-97, American Concrete Institute, 1997.~~

3.8.4.5 Structural Acceptance Criteria

Acceptance criteria for the buried electrical duct banks are in accordance with IEEE 628-2001 (R2006) (IEEE, 2001), ASCE 4-98 (ASCE, 2000) and ACI 349-01 (ACI, 2001a), with the supplemental guidance of Regulatory Guide 1.142 (NRC, 2001). ~~The use of ACI349-01, in lieu of ACI 349-97 (ACI, 1997) as invoked in Subsection 4.9.4.15 of IEEE 628-2001 (R2006), is to provide a consistent design basis with all other Seismic Category I structures.~~

3.8.6 REFERENCES

~~ACI, 1997. Code Requirements for Nuclear Safety-Related Concrete Structures, ACI 349-97, American Concrete Institute, 1997.~~

RAI 79
Question 03.08.04-23:

For supplemental information item SUP 3.8 (3) in the BBNPP COL FSAR, Subsection 3.8.4.6.1,"Materials" (SRP Section 3.8.4), the applicant states in the first paragraph (Page 3-186) that "The ESWEMS Retention Pond at the BBNPP will be constructed primarily via excavation of overburden soils and replacement of soils with cohesive fill material."

Explain what is "cohesive fill material"? Is there any standard specification that applies to its use? Describe such standards or specifications

Response:

Cohesive Fill
Substances considered as cohesive fill are typically clayey in nature, but may include some percentage of well-graded material. Cohesive fill should consist of durable materials free from organic matters or any other deleterious substances and be of such nature that it can be compacted readily to a firm and non-yielding state. Materials classified by ASTM D 2487-06e1, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soils Classification System), as GC, SC, ML, and CL are typically considered satisfactory as cohesive fill.

Compaction Requirement
Cohesive fill needs to be compacted at a moisture content of ±2 percent of the optimum and to a minimum relative compaction of 95 percent Proctor optimum dry unit weight. The maximum dry density and optimum moisture content is determined in accordance with ASTM D 1557-09, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2700 kN-m/m^3)).

Clearing and Preparing Fill Areas
Prior to placing cohesive fill, the excavation bottom to receive the fill must be observed, probed, tested, and approved by qualified personnel as a part of the Quality Control measures.

Placing, Spreading and Compacting Fill Material
All fill materials need to be placed in horizontal layers not greater than 6 inches in loose thickness. Each layer is required to be spread evenly and mixed thoroughly to obtain uniformity of material and moisture. When the moisture content of the fill material is below that specified, water needs to be added until the moisture content is as specified. When the moisture content of the fill material is too high, the fill material needs to be aerated through blading, mixing, or other satisfactory methods until the moisture content is as specified. After each fill layer has been placed, mixed, and spread evenly, it must be thoroughly compacted to the specified degree of compaction. Compaction needs to be accomplished by acceptable types of compacting equipment. The equipment is required to be of such design and nature that it is able to compact the fill to the specified degree of compaction. Compaction should be continuous over the entire area, and the equipment should make sufficient passes to obtain the desired uniform compaction. The surface of fill slopes requires compaction until the slopes are stable and there is no loose soil on the slopes. Compaction of the slopes needs to be performed by over-building and cutting back.

Observation and Testing of Fill Placement
Continuous geotechnical engineering observation and inspection of all fill placement and compaction operations is required to certify and ensure that the fill is properly placed and compacted in accordance with the Project plans and specifications. Field density tests in accordance with ASTM D 1556-07, Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method, are required to be performed for each layer of fill. Moisture content may be determined in the laboratory (ASTM D 2216-05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass) or in the field using nuclear methods (ASTM D 6938-08a, Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)). If the surface is disturbed, the density tests are to be made in the compacted materials below the disturbed zone. When these tests indicate that the degree of compaction of any layer of fill or portion thereof does not meet the specified minimum requirement, the particular layer or portions requires reworking until the specified relative compaction is obtained.

At least one in-place moisture content and density test is required on every lift of fill, and further placement is not allowed until the required relative compaction has been achieved. The number of tests is increased if a visual inspection determines that the moisture content is not uniform or if the compacting effort is variable and not considered sufficient to meet the Project specification.

Standards:

- American Society of Testing and Materials (ASTM) D 2487-06e1, Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System), "Annual Book of ASTM Standards," 04.08, West Conshohocken, PA (2009).
- ASTM D 1557-09, Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3(2700 kN-m/m^3)), "Annual Book of ASTM Standards," 04.08, West Conshohocken, PA (2009).
- ASTM D 1556-07, Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method, "Annual Book of ASTM Standards," 04.08, West Conshohocken, PA (2009).
- ASTM D 2216-05, Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass, "Annual Book of ASTM Standards," 04.08, West Conshohocken, PA (2009).
- ASTM D 6938-08a, Standard Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth), "Annual Book of ASTM Standards," 04.09, West Conshohocken, PA (2009).

COLA Impact:

The BBNPP FSAR will not be revised as a result of this response.

RAI 79
Question 03.08.04-24:

For supplemental information item SUP 3.8 (5) in the BBNPP COL FSAR, Subsection 3.8.4.7,"Testing and Inservice Inspection Requirements" (SRP Section 3.8.4), the applicant states: "Inservice Inspection requirements which pertain to ground water chemistry and potential degradation of below-grade concrete walls and buried duct banks are not applied in the BBNPP ESWEMS Pumphouse and Retention Pond and its associated buried duct banks and pipes given non-aggressive ground water condition at the site."

Also for COL items COL 3.8 (15) and 3.8 (16) in Subsection 3.8.5.7,"Testing and Inservice Inspection Requirements," the applicant states (for Foundations), in part, (Page 3-193) that: "The BBNPP ground water/soil is considered to be non-aggressive. The inservice testing program follows intervals defined for non-aggressive soil/water conditions for inspecting normally inaccessible below-grade concrete walls and foundations. This interval calls for:

• Examination of exposed portions of below-grade concrete for signs of degradation when excavated for any reason; and

• Periodic monitoring of ground water chemistry to confirm that the ground water remains non-aggressive."

It would seem reasonable to apply a program of inservice inspection for the buried piping, conduits, and duct banks similar to that used for the foundations. The applicant is requested to explain the rationale for not specifying an inservice inspection program for buried utility piping, conduit, and duct banks.

Response:

The Inservice Inspection Program for buried pipes, conduits and concrete duct banks will be revised to include program elements similar to that used for foundations, as identified in FSAR 3.8.5.7.

COLA Impact:

The BBNPP FSAR will be revised as follows:

3.8.4.7 Testing and Inservice Inspection Requirements

~~{Inservice Inspection requirements which pertain to groundwater chemistry and potential degradation of below-grade concrete walls and buried duct banks are not applied in the BBNPP ESWEMS Pumphouse and Retention Pond and its associated buried duct banks and pipes given the non-aggressive groundwater condition at the site~~. {The BBNPP ground water/soil is considered to be non-aggressive. The inservice testing program follows intervals defined for non-aggressive soil/water conditions for inspecting normally inaccessible below-grade concrete walls and foundations as identified in FSAR Section 3.8.5.7. This interval calls for:

- Examination of exposed portions of below-grade concrete duct banks, conduit and buried piping for signs of degradation when excavated for any reason; and
- Periodic monitoring of ground water chemistry to confirm that the ground water remains non-aggressive as identified in FSAR Section 3.8.5.7.}