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March 29, 2010

ATTN: Ms. Vanessa E. Quinn  
Chief, Radiological Emergency Preparedness Branch  
Federal Emergency Management Agency  
U.S. Department of Homeland Security  
500 C Street, SW  
Washington, D.C. 20472

**BELL BEND NUCLEAR POWER PLANT  
RESPONSE TO FEMA INTERIM FINDINGS  
REPORT FOR OPEN ITEMS  
BNP-2010-083      Docket No. 52-039**

References: 1) Letter, V.E. Quinn (FEMA) to R.R. Sgarro (PPL), "Federal Emergency Management Agency's (FEMA) Interim Findings Report (IFR) for Open Items (OIs) for the Bell Bend Nuclear Power Plant (BBNPP) Combined License (COL) Application", dated December 10, 2009.

This letter provides PPL's response to FEMA's Interim Findings Report for Open Items (Reference 1). Enclosure 1 to this letter provides PPL's response to each open item. Enclosure 2 lists the documents provided in support of this response, and the documents are provided electronically in Enclosures 3 and 4.

If you have any questions about this transmittal, please contact the undersigned at 570-802-8102.

Respectfully,

Rocco R. Sgarro

RRS/kw

Enclosure: 1) PPL Response to FEMA Interim Findings Report for Open Items for BBNPP.  
2) List of Supporting Documentation for Enclosure 1.  
3) Electronic copy of Documents listed in Enclosure 2.  
4) Electronic copy of Evacuation Time Estimate Study.

cc (with Enclosures):

B. Freeman, FEMA Region III  
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J. Mihalcik, Unistar  
U.S. NRC Document Control Desk (Docket No. 52-039)

Enclosure 1

PPL Response to FEMA Interim Findings Report for Open Items for BBNPP

**1. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, *Radiological Exposure Control*, Section 6.C, and Attachment B, Section 3.B.2, state that "KI should be taken only at the direction from the State of Pennsylvania. The projected dose that triggers this advice is 25 rem CDE to the adult thyroid." This is inconsistent with the BRP-ER-A-7.0 criteria of when a General Emergency is declared OR at a projected child thyroid committed dose equivalent of 5 rem. Please provide amended plan information that is consistent with BRP guidance

**Answer A:**

Annex A of the Commonwealth of Pennsylvania Radiological/Nuclear Plan has replaced the former Annex E and correctly identifies the 5 rem dose.

**Question B:**

The Risk County RERPs, Appendix 13, *Radiological Exposure Control*, Section 6.C, state that "KI should be taken only at the direction from the State of Pennsylvania. The projected dose that triggers this advice is 25 rem CDE to the adult thyroid." This is inconsistent with the BRP-ER-A-7.0 criteria of when a General Emergency is declared OR at a projected child thyroid committed dose equivalent of 5 rem. Please provide amended plan information that is consistent with BRP guidance.

**Answer B:**

The Luzerne and Columbia county plans have been revised to reflect the 5 rem value.

**2. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 23, states that formal agreements are pending to locate the FRMAC at the Ashley U.S. Army Reserve Center and the DFO at the Kingston Armory. Please provide information on the final arrangements for the location of the FRMAC.

**Answer A:**

The Pennsylvania Emergency Management Agency (PEMA) is working with the Wilkes –Barre Scranton International Airport Authority to establish an agreement for use of airport facilities to support FRMAC. Airport facilities provide more convenient services for FRMAC, and the Airport Authority is open to an agreement. PEMA is continuing to pursue this arrangement.

**Question B:**

The PA State plan says that the county EMAs who provide support to the Federal response are to cooperate with the Federal government and PEMA in planning for and making the necessary support arrangements; however, the Risk County RERPs do not contain reciprocal language acknowledging that the counties are responsible for assisting with support arrangements for Federal agencies. Please provide Risk County plan information acknowledging the statement in the PA State plan that the counties may be called upon to provide resources to support the Federal response.

**Answer B:**

Risk County Radiological Emergency Response Plans (RERP)s have been amended to include the responsibility to assist Federal responders.

**Question C:**

The PA State plan says that the county EMAs who provide support to the Federal response are to cooperate with the Federal government and PEMA in planning for and making the necessary support arrangements; however, the Support County Nuclear/Radiological Incident Plans do not

contain reciprocal language acknowledging that the counties are responsible for assisting with support arrangements for Federal agencies. Please provide Support County plan information acknowledging the statement in the PA State plan that the counties may be called upon to provide resources to support the Federal response.

**Answer C:**

Support County Plans have been amended to include the responsibility to assist Federal responders.

**3. Question:**

Dosimetry correction factor

**Answer:**

Discussion of this item provided common understanding of the issue raised by the reviewer. Pennsylvania BRP procedure BRP-ER-A-7.0, Section 7.5.2.1, "Emergency Worker Dose", has been revised to incorporate the appropriate guidance for dosimetry correction.

**4. Question:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 11, Attachment A, *List of Designated MS-1 Hospitals Capable of Evaluation and Emergency Treatment of Contaminated Individuals* identifies four MS-1 hospitals serving SSES. This list is inconsistent with the Luzerne and Columbia County plans. Please update the PA State plan to show the correct MS-1 hospitals and their capacities.

**Answer:**

The list is included in the Pennsylvania Radiological/Nuclear Plan, Annex A, Appendix 5, Attachment A.

Additionally, Luzerne and Columbia Counties (Risk Counties) have included the list of nearby MS-1 hospitals in their respective Radiological Emergency Response Plans.

**5. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 11, Attachment J, *Hospitals Serving in a General Capacity to the Susquehanna Steam Electric Station*, says that a listing of hospitals capable of providing medical support for contaminated injured individuals is found in the Pennsylvania Department of Health; a copy of the directory is maintained in the State and Risk County EOCs. This list was not provided for review. Please provide the list of hospitals and EMS organizations capable of providing medical support for contaminated injured individuals.

**Answer A:**

The Pennsylvania Department of Health website provides this listing of hospitals at

<http://app2.health.state.pa.us/commonpoc/content/publiccommonpoc/commonpocselect.asp?formSubmitted=SearchByFacType&factype=01>

This website is referenced in the Pennsylvania Radiological/Nuclear Plan, Annex A, Appendix 5, Section 3.C.

**Question B:**

The Risk County RERPs, Appendix 7, Attachment F *Hospitals Serving in General Support*, state that general support hospitals around SSES capable of providing medical support for contaminated injured individuals are included on a list that is maintained in the EOC. This list

was not provided for review. Please provide the list of hospitals and EMS organizations capable of providing medical support for contaminated injured individuals.

**Answer B:**

The Luzerne County RERP, Appendix 7, Attachment F *Hospitals Serving in General Support*, has been revised to reference the PADOH website which lists general support hospitals. The Columbia County RERP lists the *Hospitals Serving in General Support* in Appendix 7, Attachment F.

**6. Question:**

A.1. Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, *Radiological Exposure Control*, Section 4.F, *Monitoring/ Decontamination Teams*, specifies 1000 counts per minute including background for GM pancake probes action level. This contradicts the FEMA-REP-22 guidance for loose contamination, and the 300 counts per minute action level given in the county plans and BRP-ER-A-7.4.4, *Protective Response, Surface Contamination Control*.

A.2 A.2 Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, *Radiological Exposure Control*, Attachment A, Section 2.G(8), *Monitoring Procedures for Vehicles*, says to consider vehicles contaminated if any of the readings are greater than 1000 counts per minute with a Geiger-Mueller Beta/Gamma pancake probe. This contradicts the FEMA-REP-22 guidance for loose contamination, and the 300 counts per minute action level given in the county plans and BRP-ER-A-7.4.4, *Protective Response, Surface Contamination Control*.

**Answers A1 & A2:**

The Pennsylvania Radiological /Nuclear Plan, Annex A, Nuclear Power Plant Incidents, has been revised to incorporate the appropriate guidance in Appendix 3, Attachment C.

Specifically, this guidance establishes 300 counts per minute (cpm) above background as the threshold for determining that a vehicle is contaminated and initiating decontamination procedures. It also recognizes that the limit for fixed contamination (contamination remaining after decontamination of the vehicle) on vehicles is 1000 cpm above background. Both are now consistent with FEMA-REP-22 guidance.

**7. Question A1:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, *Radiological Exposure Control*, Section 4.F, *Monitoring/Decontamination Teams*; Section 9.X, *Definitions*, and Attachment A, Section 2.G, *Monitoring Procedures for Vehicles*, all indicate that portal monitors may be used to monitor vehicles. This is contrary to PEMA Emergency Management Guidance and Information Circular, "Contamination Monitoring and Decontamination Guidance for Radiological Emergency Response", (No.: C2004-2). Please provide amended plan pages clarifying that portal monitors may *not* be used to monitor vehicles.

**Answer A1:**

The Pennsylvania Radiological /Nuclear Plan, Annex A, Nuclear Power Plant Incidents, has been revised to state that portal monitors may not be used for vehicle monitoring.

**Question A.2:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, *Radiological Exposure Control*, does not include a procedure to source check the portal monitors used at monitoring and decontamination centers. Please provide procedures for source checking portal monitors in accordance with FEMA-REP-21.

**Pennsylvania response:** PEMA Interim Radiological Plans Guidance Memo dated April 6, 2009. Enclosure II, Section V.B.1.a (Page II-4) states that pre-operational checks on portal monitors must be conducted in accordance with the manufacturer's instructions.

**Additional clarification of question:** In addition to manufacturer's instructions, FEMA-REP-21 specifies that the pre-operational source check must include a demonstration that the portal monitor will alarm when one or more cesium-137 source(s) with a total activity not exceeding one  $\mu\text{Ci}$  of Cs-137 source(s) located at several points along a vertical line centered between the two side columns of the portal monitor between 0.5 and 5½ feet above the base upon which the individual stands when being monitored.

**Answer A.2:**

The procedure for source checking portal monitors has been incorporated in the Pennsylvania Emergency Operations Plan.

**Question B:**

Risk County RERPs, Appendix 13, *Radiological Exposure Control, Attachment A, Monitoring and Decontamination Procedures*, do not include a procedure to source check the portal monitors used at monitoring and decontamination centers. Please provide procedures for source checking portal monitors in accordance with FEMA-REP-21.

**Answer B:**

The procedure for source checking portal monitors has been incorporated in the Risk County RERPs, Appendix 13, *Radiological Exposure Control*.

**8. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Section 13, Definitions and Terms, describes Emergency Classification Levels that are not consistent with those in the Applicant's plan. The PA State plan does not include the security threat language. Please provide amended Emergency Classification Levels that are consistent with those established by the Applicant.

**Answer A:**

The Pennsylvania Radiological /Nuclear Plan, Annex A, Nuclear Power Plant Incidents has replaced Annex E and has been revised to include the security threat language.

**Question B:**

Columbia County RERP, Enclosure 4 *Emergency Response Action Guidelines for the Four Classes of Incidents*, describes Emergency Classification Levels that are not consistent with those in the Applicant's plan. The Columbia County plan does not include the security threat language. Please provide amended Emergency Classification Levels that are consistent with those established by the Applicant.

**Answer B:**

Columbia County RERP, Enclosure 4 *Emergency Response Action Guidelines for the Four Classes of Incidents*, has been revised to include the security threat language.

**9. Question A.1:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 15, *Return and Recovery*, incorrectly characterizes reentry activities as "emergency" activities and consequently specifies the wrong dose limits. EPA states [in Section 4.6 of the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA 400-R-92-001)] that individuals who enter the restricted zone should have their doses controlled in accordance with

occupationally-exposed worker limits (i.e., those found in 10CFR20.1201 Occupational Dose Limits for Adults). Please provide amended plan pages showing correct dose limits during reentry activities.

**Answer A.1:**

The Pennsylvania Radiological /Nuclear Plan, Annex A, Nuclear Power Plant Incidents has been revised to remove the incorrect reference and to reference the BRP plan, which provides direction consistent with EPA 400-R-92-001.

**Question A.2:**

BRP-ER-A-8.03 *Reentry, Return, Relocation, and Recovery Procedure*, incorrectly characterizes reentry activities as "emergency" activities and consequently specifies the wrong dose limits. EPA states [in Section 4.6 of the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA 400-R-92-001)] that individuals who enter the restricted zone should have their doses controlled in accordance with occupationally-exposed worker limits (i.e., those found in 10CFR20.1201 Occupational Dose Limits for Adults). Please provide amended plan pages showing correct dose limits during reentry activities.

**BRP Response:** BRP-ER-A-8.03 is not the correct citation for BRP dose limits during reentry. The BRP Plan addresses 'Reentry' (also called 'Controlled Entry') at BRP-ER-A-7.4.2.2, and assigns an occupational dose limit of 5 Rem TEDE. Also, at BRP-ER-A-7.5.1.2, Intermediate and Recovery Phase Dose Limits for Emergency Workers are discussed, and the 10CFR20 annual occupational limit of 5 Rem TEDE is stated.

**Resolution:** Dose limits are correctly stated in the given sections. However it is noted that BRP-ER-A-8.03 and BRP-ER-A-7.6.1 refer to the radiation workers entering the restricted areas as "emergency workers." It is recommended that BRP amend its plans to clearly define emergency responders, radiation workers, and emergency workers, and the dose limits appropriate for each group.

**Answer A.2:**

It is PPL's understanding that FEMA Region III and the Pennsylvania Bureau of Radiation Protection agreed that the BRP plan provides the correct direction, and no further action is required.

**Question B:**

Risk County RERPs, Appendix 16, *Recovery (Re-entry, Return, and Relocation)*, incorrectly characterize reentry activities as "emergency" activities and consequently specify the wrong dose limits. EPA states [in Section 4.6 of the Manual of Protective Action Guides and Protective Actions for Nuclear Incidents (EPA 400-R-92-001)] that individuals who enter the restricted zone should have their doses controlled in accordance with occupationally-exposed worker limits (i.e., those found in 10CFR20.1201 Occupational Dose Limits for Adults). Please provide amended plan pages showing correct dose limits during reentry activities

**Answer B:**

The Risk County RERPs have been revised to remove the incorrect reference. Risk Counties will take direction for dose control during reentry activities from BRP through PEMA.

**10. Question:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5 *Radiological Exposure Control*, Section 4, states that PEMA will specify implementation of comprehensive inventory maintenance programs for KI. The storage guidelines and

replacement procedures for KI are not provided. Please provide KI storage guidelines and replacement procedures.

**Answer:**

KI storage and replacement guidance has been incorporated in the Pennsylvania Radiological/Nuclear Plan, Annex A, Nuclear Power Plant Incidents.

**11. Question:**

Risk County RERPs, Appendix 12 *Mass Care Section 4 Requirements* Part A says that the appendix is based upon the assumption that 30 percent of the evacuees will need mass care services. Section 4 Part C says the county has assumed that 20 percent of the evacuees will require mass care space. Please provide plan material explaining the rationale for the difference in the planning basis between the two sections, or provide amended plan material using the same planning basis.

**Answer:**

Risk County RERPs, Appendix 12 *Mass Care Section 4 Requirements* Part A, have been revised to state the appendix is based upon the assumption that 20% of the evacuees will need mass care services.

**12. Question A:**

Risk County RERPs, Appendix 13 *Radiological Exposure Control*, allows for a final post decontamination survey be conducted using a portal monitor. This is not consistent with the intent of FEMA REP-21 and 22; per FEMA guidance, the portal monitor is intended to screen individuals who have not bathed and changed prior to monitoring (as a distribution of fixed and removable contamination is factored into the 1 microcurie portal monitor sensitivity requirement). Please provide amended plan information indicating that the primary post-decontamination monitoring will be conducted using an appropriate hand-held instrument.

**Answer A:**

Risk County RERPs have been revised to prohibit use of portal monitors for post decontamination surveys.

**Question B:**

Support County Nuclear/Radiological Incident Plans (except Montour), Appendix 4, Attachment F, Tab D *Post Decontamination Monitoring using Portal Monitors of Individuals found to be Contaminated*, allows for a final post decontamination survey be conducted using a portal monitor. This is not consistent with the intent of FEMA REP-21 and 22; per FEMA guidance, the portal monitor is intended to screen individuals who have not bathed and changed prior to monitoring (as a distribution of fixed and removable contamination is factored into the 1 microcurie portal monitor sensitivity requirement). Please provide amended plan information indicating that the primary post-decontamination monitoring will be conducted using an appropriate hand-held instrument.

**Answer B:**

Support County Nuclear/Radiological Incident Plans have been revised to prohibit use of portal monitors for post decontamination surveys.

**13. Question:**

Risk County RERPs, Appendix 9, Attachment A, *Transportation Resources*, state that the list of medical transportation providers is on file at the EOC, but the list was not provided for review. Please provide the list of medical transportation providers, as well as the appropriate LOAs with the providers or a statement that the provider's services are ensured through Title 35.

**Answer:**

A list of transportation service providers is maintained in the Risk County EOCs and is available for inspection there. Memoranda of Understanding with medical transport providers are also available for inspection in the Risk County EOCs.

**14. Question A1:**

Luzerne County RERP, Appendix 20, *Agreements and Statements of Understanding*, includes descriptions of 14 agreements with transportation providers. Of the 14, the supplemental COL application information (BNP-2008-009 Attachment 4 – Luzerne County – A4 through A16) indicates that 8 are out of business; no copy of the agreements could be obtained for 5 companies, and there was no information on the remaining 1 agreement. There is no documentation that any of Luzerne County's agreements for transportation are valid. Please provide current, valid agreements for transportation in Luzerne County.

**Answer A1:**

Luzerne County has renewed Memoranda of Understanding with transportation providers. These Memoranda are available for inspection in the Luzerne County EOC.

**Question A2:**

Columbia County RERP, Appendix 20, *Agreements and Statements of Understanding*, includes a description of an agreement with 1 transportation provider. The supplemental COL application information (BNP-2008-009 Attachment 3 – Columbia County – A7 and A8) contains agreements with two transportation companies dated over 10 years ago. Furthermore, the description in Appendix 20 does not match either of the agreements provided. Please provide current agreements for transportation in Columbia County and amend the agreement descriptions in Appendix 20 accordingly.

**Answer A2:**

Columbia County has renewed Memoranda of Understanding with transportation providers. These Memoranda are available for inspection in the Columbia County EOC.

**15. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Section 4 *Concept of Operations, G State Emergency Operations Center (EOC) Notification Procedures* says that detailed procedures for the alert and activation of the emergency response personnel are contained in the State EOC Standard Operating Procedures (SOP) and departmental implementing procedures, but these documents were not provided for review. Please provide these documents for review.

**Answer A:**

The SOP contains personal privacy information, and therefore is not included in this submittal. It is available for inspection in the PEMA offices.

**Question B1:**

Luzerne County RERP, Enclosures 5 and 6, state that the Luzerne County Resource Manual contains implementing procedures for alert and activation of the emergency response personnel, but the Resource Manual was not provided for review. Please provide the Luzerne County Resource Manual for review.

**Answer B1:**

The Luzerne County Resource Manual contains personal privacy information, and therefore is not included in this submittal. It is available for inspection in the Luzerne County EOC. Procedures for activation have been added to the Luzerne County RERP.

**Question B2:**

Columbia County RERP, Enclosures 5 and 6, state that the Columbia County Plan call out list and Risk Municipality emergency management organizations list are maintained in the Columbia County EOC for alert and activation of the emergency response personnel, but these documents were not provided for review. Please provide the Columbia County Plan call out list and Risk Municipality emergency management organizations list for review.

**Answer B2:**

The Columbia County Plan call out list and Risk Municipality emergency management organizations list contain personal privacy information, and therefore are not included in this submittal. They are available for inspection in the Columbia County EOC.

Procedures for activation have been added to the Columbia County RERP.

**Question C:**

The Support County Emergency Operations Plan specifies that the emergency response may be activated by the Emergency Management Coordinator, but it does not provide procedures for this activation. Please provide the activation procedures.

**Answer C:**

The Support County Emergency Operations Plans have been revised to include activation procedures.

**16. Question:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 3 *Public Alert and Notification*, Sections 2 through 4 say the design objective for siren coverage within 5 miles of the plant is 90%. However, NUREG 0654/FEMA REP-1, Rev 1., Appendix 3, states that the design objective for the initial notification system will ensure direct coverage of essentially 100% of the population within 5 miles of the site. Please provide amended plan pages showing siren design objectives consistent with NUREG guidance.

**Answer:**

The Commonwealth of Pennsylvania Emergency Operations Plan has been revised to require that the initial notification system will ensure direct coverage of essentially 100% of the population within 5 miles of the site.

**17. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 16, Public Education and Information, contains draft initial EAS messages, but it does not contain draft messages providing specific protective actions to be taken such as information on the use of KI or agricultural advisories. Please provide these additional draft messages.

**Answer A:**

The Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, has been revised to include draft messages providing specific protective actions to be taken in the event of the use of KI and for agricultural advisories. These messages are included in Appendix 12.

**Question B:**

Risk County RERPS, Appendix 4, *Public Information*, contain draft initial EAS messages, but it does not contain draft messages for agricultural advisories (referenced in Risk County plans Appendix 15). Please provide these additional draft messages.

**Answer B:**

Risk County RERPS, Appendix 4, *Public Information*, have been revised to include a draft message for agricultural advisories in Appendix 4.

**18. Question A.1:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 17, *Training, Attachment A, Listing of Approved Training Programs* provides information on Federal, State, county, and licensee training courses; however, it does not specify which courses and other training requirements are necessary for accident assessment personnel. Please provide specific training requirements for accident assessment personnel

**Answer A.1:**

The Commonwealth of Pennsylvania Emergency Operations Plan, Annex A prescribes the training required for state personnel who perform accident assessment functions.

**Question A2:**

The BRP RERP does not provide specific training requirements for individuals tasked with accident assessment responsibilities. Please provide specific training requirements for accident assessment personnel.

**Answer A2:**

A Pennsylvania Bureau of Radiation Protection (BRP) memo dated February 25, 2010 (included in Enclosure 3) prescribes the training requirements for BRP personnel who perform accident assessment functions.

**19. Question A.1:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 17, *Training, Attachment A, Listing of Approved Training Programs* provides information on federal, state, county, and licensee training courses; however, it does not specify which courses and other training requirements are necessary for radiological monitoring teams (field survey teams) and analysis personnel. Please provide specific training requirements for radiological monitoring teams (field survey teams) and analysis personnel.

**Answer A.1:**

A Pennsylvania Bureau of Radiation Protection (BRP) memo dated February 25, 2010 (included in Enclosure 3) prescribes the training requirements for radiological monitoring teams and analysis personnel.

**Question A.2:**

BRP-ER-A-6.01 Field Team Operations does not include specific training requirements for radiological monitoring team personnel or analysis personnel. Please provide specific training requirements for radiological monitoring teams (field survey teams) and analysis personnel.

**BRP Response:** In BRP-ER-A-4.0, is a description of the qualifications necessary for personnel who are assigned to roles in BRP's Initial Activation. The *BRP Radiological Emergency Response Plan* is an operational plan, and as such does not include detailed training documentation.

**Additional clarification of question:** BRP-ER-A-4.0 does not include descriptions of the qualifications of response personnel (or their training requirements); it contains functional descriptions of various positions. Training requirements needs can be included in the BRP Plan (since, contrary to the comment, there are non-operational issues in that plan) or as part of the PA State plan.

**Answer A.2:**

A Pennsylvania Bureau of Radiation Protection (BRP) memo dated February 25, 2010 (included in Enclosure 3) specifies the training requirements for radiological monitoring teams and analysis personnel.

**20. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 17, *Training*, states that personnel responsible for transmission of emergency information will receive training; however, the plans do not describe the content of training. Please provide information describing training for personnel responsible for transmission of emergency information.

**Answer A:**

The Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, Appendix 11, Section 2.D. specifies training for personnel responsible for transmission of emergency information.

**Question B:**

Risk County RERPs do not address training for personnel responsible for transmission of emergency information. Please provide information describing training for personnel responsible for transmission of emergency information.

**Answer B:**

Training for risk county personnel is specified in Pennsylvania Title 35 and detailed in PEMA Emergency Management Directive D2003 -5.

Training for risk county personnel responsible for transmission of emergency information is conducted in accordance with the Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, Appendix 11, Section 2.D.

**21. Question:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 17, *Training*, does not address annual retraining of State emergency response personnel. Please provide plan information addressing annual retraining of State emergency response personnel.

**Answer:**

The revised Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, Section VI.A.2 requires annual retraining.

**22. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, *Radiological Exposure Control, Attachment C, Inventory and Maintenance Procedures* specifies annual, rather than quarterly, checks of equipment (other than communications equipment). Please provide amended plan pages specifying quarterly checks of equipment.

**Answer A:**

The Commonwealth of Pennsylvania Emergency Operations Plan, Annex A has been revised to specify quarterly equipment checks.

**Question B:**

Risk County RERPs, Appendix 13 *Radiological Exposure Control, Attachment C Inventory and Maintenance Procedures* specify annual, rather than quarterly, checks of equipment (other than communications equipment). Please provide amended plan pages specifying quarterly checks of equipment.

**Answer B:**

Risk County RERPs have been revised to require quarterly equipment checks.

**Question C:**

Support County Nuclear/Radiological Incident Plans, Appendix 5 *Inventory and Maintenance Procedures* specify annual, rather than quarterly, checks of equipment (other than communications equipment). Please provide amended plan pages specifying quarterly checks of equipment.

**Answer C:**

Support County Nuclear/Radiological Incident Plans have been revised to require quarterly equipment checks.

**23. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E Appendix 17 *Training*, does not specify whether individuals responsible for the planning effort are required to attend specific training courses such as those described in Appendix 17. Please provide information on training requirements for individuals responsible for the planning effort.

**Answer A:**

Training for individuals responsible for the planning effort is specified in Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, Appendix 11.

**Question B:**

Risk County RERPs, Section 6 *Organization and Responsibilities*, B do not specify whether individuals responsible for the planning effort are required to attend specific training courses such as those described in Appendix 17 of the PA State plan. Please provide information on training requirements for individuals responsible for the planning effort.

**Answer B:**

Training for Risk County personnel is specified in Pennsylvania Title 35 and detailed in PEMA Emergency Management Directive D2003 -5.

Specifically, EMC coordinators and deputy coordinators are required to complete phases 1 and 2 of the PEMA coordinated training. The county coordinators and deputy coordinators are the people responsible for the planning effort.

**Question C:**

Risk County Municipality RERPs, Section VII *Training and Exercises* do not specify whether individuals responsible for the planning effort are required to attend specific training courses such as those described in Appendix 17 of the PA State plan. Please provide information on training requirements for individuals responsible for the planning effort.

**Answer C:**

Training for Risk County Municipality personnel is specified in Pennsylvania Title 35 and detailed in PEMA Emergency Management Directive D2003 -5.

Specifically, EMC coordinators and deputy coordinators are required to complete phases 1 and 2 of the PEMA coordinated training. The county coordinators and deputy coordinators are the people responsible for the planning effort.

**Question D:**

Support County Nuclear/Radiological Incident Plans do not contain any information on whether individuals responsible for the planning effort are required to attend specific training courses such as those described in Appendix 17 of the PA State plan. Please provide information on training requirements for individuals responsible for the planning effort.

**Answer D:**

Training for Support County personnel is specified in Pennsylvania Title 35 and detailed in PEMA Emergency Management Directive D2003 -5. Specifically, EMC coordinators and deputy coordinators are required to complete phases 1 and 2 of the PEMA coordinated training. The county coordinators and deputy coordinators are the people responsible for the planning effort.

**24. Question A:**

Risk Municipality RERPs, Section IX *Plan Changes and Distribution*, A.1 do not specifically state that the agreements will be re-certified annually. Please provide information on annual re-certification of agreements.

**Answer A:**

Risk municipality plans have been revised to require that plans and agreements be reviewed annually and updated as needed.

**Question B:**

Lackawanna, Northumberland, and Union County RERPs, County Support Procedure, *Annex Maintenance and Concurrence*, state that they will update their plans at least biennially, rather than annually as required by Criterion P.4. Please provide amended plan pages stating that plans will be updated at least annually.

**Answer B:**

County RERPs and supporting information have been revised to require annual review and update.

**25. Question:**

Risk Municipality RERPs, Section IX *Plan Changes and Distribution* do not describe a method to make changes other than during the annual review/ distribution. Please provide information describing the method used to make changes other than during the annual review/distribution.

**Answer:**

Guidance on interim plan changes is incorporated in Risk Municipality RERPs, Section IX, *Plan Changes and Distribution*.

**26. Question A:**

Risk Municipality RERPs do not include a listing of supporting plans. Please provide a listing of supporting plans

**Answer A:**

The list of supporting plans has been incorporated in Risk Municipality RERPs and Support County Nuclear/Radiological Incident Plans in the section titled *Authority, References and Supporting Plans*.

**Question B:**

Risk Municipality RERPs and Support County Nuclear/Radiological Incident Plans do not include a listing of supporting plans. Please provide a listing of supporting plans.

**Answer B:**

The list of supporting plans has been incorporated in Risk Municipality RERPs and Support County Nuclear/Radiological Incident Plans in the section titled *Authority, References and Supporting Plans*.

**27. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Appendix 22 *Supporting Plans and Implementing Procedures* includes a listing of procedures required to implement the plan. The referenced listings do not include the section s(s) of the plan to be implemented by each procedure. Please provide updated plan procedure listing pages showing the section s(s) of the plan to be implemented by each procedure.

**Answer A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, Section VIII.D. lists the Standard Operating Procedures and the plan sections they support.

**Question B:**

Risk County RERPs, Appendix 21 *Supporting Plans and Implementing Procedures*, include a listing of procedures required to implement the plan. The referenced listings do not include the sections(s) of the plan to be implemented by each procedure. Please provide updated plan procedure listing pages showing the sections(s) of the plan to be implemented by each procedure.

**Answer B:**

Risk County RERPs have been revised to incorporate a cross reference showing which sections of the plan are implemented by each procedure. This information is included in the list of appendices.

**Question C:**

Risk Municipality RERPs, Section X *Standard Operating Procedures* include a listing of procedures required to implement the plan. The referenced listings do not include the sections(s) of the plan to be implemented by each procedure. Please provide updated plan procedure listing pages showing the sections(s) of the plan to be implemented by each procedure.

**Answer C:**

Risk Municipality RERPs have been revised to incorporate a cross reference showing which sections of the plan are implemented by each procedure. This cross reference is located in the SOP listing.

**28. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Section 4 *Concept of Operations*, G *State Emergency Operations Center (EOC) Notification Procedures* references notification procedures (these were not provided for review) and does not specify that telephone numbers/call down lists will be updated quarterly. Please provide plan pages showing that telephone numbers/call down lists and maps will be updated quarterly.

**Answer A:**

The Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, Section VII.A specifies annual plan and map reviews, and updates when necessary. It also specifies that notification lists are updated continually.

**Question B1:**

Luzerne County RERP does not address the updating of maps. Please provide plan pages showing that maps will be updated quarterly

**Answer B1:**

The Luzerne County RERP, Section VI., *Plan Maintenance and Distribution*, has been revised to require annual review of plans and maps, and updates as necessary. Quarterly updates of maps are not required by regulation and are not necessary considering the amount of change in the county and the local knowledge in the county and municipal staffs.

**Question B2:**

Columbia County RERP, Enclosures 5 and 6, says that the telephone numbers and call down list is updated as necessary (no frequency is specified). The plan does not address the updating of maps. Please provide plan pages showing that telephone numbers/call down lists and maps will be updated quarterly

**Answer B2:**

The Columbia County RERP, Section VI., *Plan Maintenance and Distribution*, has been revised to require annual review of plans and maps, and updates as necessary and continuous updates of phone lists. Quarterly updates of maps are not required by regulation and are not necessary considering the amount of change in the county and the local knowledge in the county and municipal staffs.

**Question C1:**

Risk Municipality RERPs, Section XI *Notification and Resource Manual*, Annex A, *Emergency Notification List*, say that the call down lists are updated annually. The plans do not address the updating of maps. Please provide plan pages showing that telephone numbers/call down lists and maps will be updated quarterly.

**Answer C1:**

The Risk Municipality RERPs have been revised to require annual review of plans and maps, and update as needed. The Notification and Resource Manuals have been changed to require quarterly review and update of phone lists. Quarterly updates of maps are not required by regulation and are not necessary considering the amount of change in the county and the local knowledge in the county and municipal staffs.

**Question C2:**

Nescopeck Township RERP, Annex A *Emergency Notification List* did not designate anyone to fill the key position of emergency management coordinator or deputy coordinator.

**Answer C2:**

An Emergency Management Coordinator and deputy have been named for Nescopeck Township. The plan has been revised to reflect the Emergency Management Coordinator and deputy.

**Question D:**

Support County Nuclear/Radiological Incident Plans do not provide information for updating telephone numbers and call down lists or the updating of maps. Please provide plan pages showing that telephone numbers/call down lists and maps will be updated quarterly.

**Answer D:**

The Annex maintenance section requires quarterly updates of phone lists and annual review of maps with updates when necessary. Quarterly updates of maps are not required by regulation and are not necessary considering the amount of change in the county and the local knowledge in the county and municipal staffs.

**29. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 7, Section 6, *References*; and Appendix 7, Attachment C, Tab 1, *Ingestion Protective Action Decision Points* incorrectly refer to and/or incorporate language from superseded 1982 FDA guidance. The current guidance document is *Accidental Radioactive Contamination of Human Food and Animal Feeds; Recommendations for State and Local Agencies* by FDA on August 13, 1998 (FDA 1998). Plan material should be amended as appropriate. Please provide corrected plan pages as specified.

**Answer A:**

References to, and data from the superseded 1982 FDA guidance have been removed from the Pennsylvania Emergency Operations Plan. Guidance for protective actions is provided to PEMA by Pennsylvania Bureau of Radiation Protection in accordance with the BRP Radiological Emergency Response Plan, Section ER - A -8.0. This plan correctly refers to *Accidental Radioactive Contamination of Human Food and Animal Feeds; Recommendations for State and Local Agencies* by FDA on August 13, 1998.

**Question B:**

Risk County RERPs, Appendix 15, Section 3.B, *Protective Actions*; Appendix 15, Section 3.C, *Notification*; and Appendix 15, Attachment C, *Ingestion Exposure Pathway Emergency Planning Zone*, Section 2.A-D incorrectly refer to and/or incorporate language from superseded 1982 FDA guidance. The current guidance document is *Accidental Radioactive Contamination of Human Food and Animal Feeds; Recommendations for State and Local Agencies* by FDA on August 13, 1998 (FDA 1998). Plan material should be amended as appropriate. Please provide corrected plan pages as specified.

**Answer B:**

References to, and data from the superseded 1982 FDA guidance have been removed from the Risk County RERPs. Guidance for protective actions is provided to PEMA by Pennsylvania Bureau of Radiation Protection in accordance with the BRP Radiological Emergency Response Plan, Section ER - A -8.0. This plan correctly refers to *Accidental Radioactive Contamination of Human Food and Animal Feeds; Recommendations for State and Local Agencies* by FDA on August 13, 1998.

**Question C:**

Support County Nuclear/Radiological Incident Plans, Appendix 9 (Appendix 3 in Montour County), Section 3.B, *Protective Actions*; Section 3.C, *Notification*; and Attachment C, *Ingestion Exposure Pathway Emergency Planning Zone*, Section 2.A-D incorrectly refer to and/or incorporate language from superseded 1982 FDA guidance. The current guidance document is *Accidental Radioactive Contamination of Human Food and Animal Feeds; Recommendations for State and Local Agencies* by FDA on August 13, 1998 (FDA 1998). Plan material should be amended as appropriate. Please provide corrected plan pages as specified.

**Answer C:**

References to, and data from the superseded 1982 FDA guidance have been removed from the Support County Nuclear/Radiological Incident Plans. Guidance for protective actions is provided to PEMA by Pennsylvania Bureau of Radiation Protection in accordance with the BRP Radiological Emergency Response Plan, Section ER - A -8.0. This plan correctly refers to *Accidental Radioactive Contamination of Human Food and Animal Feeds; Recommendations for State and Local Agencies* by FDA on August 13, 1998.

**30. Question A1:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 7, Section 6, *References*; Appendix 7, Attachment C, Section C.1.f, *Food Protection, General*; and Appendix 7, Attachment C, Section C.2.F(1), *Drinking Water PAG Analogues* incorrectly refer to and/or incorporate language from superseded EPA drinking water guidance. The current drinking water guidance is 40 CFR 141.55, *National Primary Drinking Water Regulations, Radionuclide Rule* (EPA, December 7, 2000). Plan material should be amended as appropriate. Please provide corrected plan pages as specified.

**Answer A1:**

BRP-ER-A-8.0, Ingestion Pathway, Section 8.2.1, *Drinking Water PAG Analogues*, has been revised to reflect the current guidance. Guidance and references have been removed from the Commonwealth of Pennsylvania Emergency Operations Plan, Annex A. BRP is the state agency with responsibility for this determination.

**Question A2:**

BRP-ER-A-8.0, Ingestion Pathway, Section 8.2.1, *Drinking Water PAG Analogues* incorrectly refers to and/or incorporate language from superseded EPA drinking water guidance. The current drinking water guidance is 40 CFR 141.55, *National Primary Drinking Water Regulations, Radionuclide Rule* (EPA, December 7, 2000). Plan material should be amended as appropriate. Please provide corrected plan pages as specified.

**Answer A2:**

BRP-ER-A-8.0, Ingestion Pathway, Section 8.2.1, *Drinking Water PAG Analogues*, has been revised to reflect the current guidance.

**Question B:**

Risk County RERPs, Appendix 15, Section 5, *References*, and Appendix 15, Attachment C, *Ingestion Exposure Pathway Emergency Planning Zone*, Section 2.B incorrectly refer to and/or incorporate language from superseded EPA drinking water guidance. The current drinking water guidance is 40 CFR 141.55, *National Primary Drinking Water Regulations, Radionuclide Rule* (EPA, December 7, 2000). Plan material should be amended as appropriate. Please provide corrected plan pages as specified.

**Answer B:**

This guidance has been deleted from Risk County RERPs. Direction will come from PEMA in consultation with BRP.

**Question C:**

Support County Nuclear/Radiological Incident Plans, Appendix 9 (Appendix 3 in Montour County), Section 5, *References*, and Appendix 9 (Appendix 3 in Montour County), Attachment C, *Ingestion Exposure Pathway Emergency Planning Zone*, Section 2.B incorrectly refer to and/or incorporate language from superseded EPA drinking water guidance. The current drinking water guidance is 40 CFR 141.55, *National Primary Drinking Water Regulations*,

*Radionuclide Rule* (EPA, December 7, 2000). Plan material should be amended as appropriate. Please provide corrected plan pages as specified.

**Answer C:**

This guidance has been deleted from Support County plans. Direction will come from PEMA in consultation with BRP.

**31. Question:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, *Radiological Exposure Control*, Section 4.a does not provide the age-dependent dosage level of KI for members of the general public (adolescents, children and infants). Please provide the age-dependent dosage level of KI for members of the general public (adolescents, children and infants).

**Answer:**

The revised Commonwealth of Pennsylvania Emergency Operations Plan, Annex A, Section III.E.1 provides age-dependent dosage level of KI for members of the general public.

**32. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 4, *Protective Response*, 6. *Evacuation Time Estimates*, Section E does not contain information on traffic capacities of evacuation routes. Please provide amended plan pages incorporating information on traffic capacities of evacuation routes.

**Answer A:**

The Commonwealth of Pennsylvania Emergency Operations Plan refers to the evacuation time estimate study data. Evacuation time estimates are provided in the ETE Appendix J. Summary information is provided in Tables J-1 A, B, C and D.

Traffic Capacity of evacuation routes is presented in Appendix K of the ETE. The electronic version of ETE Figure 1-2 can be used to locate the specific segment of the evacuation route, and Appendix K gives the traffic capacity of each segment.

**Question B:**

Risk County RERPs, Appendix 10, Attachment B *Evacuation Time Estimates* do not contain information on traffic capacities of evacuation routes. Please provide amended plan pages incorporating information on traffic capacities of evacuation routes.

**Answer B:**

Evacuation time estimates are provided in the ETE Appendix J. Summary information is provided in Tables J-1 A, B, C and D.

Traffic Capacity of evacuation routes is presented in Appendix K of the ETE. The Electronic version of ETE figure 1-2 can be used to locate the specific segment of the evacuation route, and appendix K gives the traffic capacity of each segment.

**33. Question A:**

Risk County RERPs, Appendix 13 *Radiological Exposure Control* do not contain information on how school children (and staff evacuated with them) will be monitored for contamination if they are not evacuated prior to a release of radioactive materials. Please provide information on how school children (and staff evacuated with them) will be monitored for contamination if they are not evacuated prior to a release of radioactive materials.

**Answer A:**

Risk County RERPs have been revised to provide the option to send school children to public reception centers for monitoring, or to send monitoring teams to the host schools.

**Question B:**

Montour County Nuclear/Radiological Incident Plans, Appendix 2 *Host School Operations* does not contain information on how school children (and staff evacuated with them) will be monitored for contamination if they are not evacuated prior to a release of radioactive materials. Please provide information on how school children (and staff evacuated with them) will be monitored for contamination if they are not evacuated prior to a release of radioactive materials.

**Answer B:**

Risk County RERPs have been revised to provide the option to send school children to public reception centers for monitoring, or to send monitoring teams to the host schools. Additionally, the Montour County plan has been revised to reflect that Columbia County may elect to send monitoring teams to one or more of the host schools in Montour County.

**34. Question A1:**

The Butler Township/Conyngam Borough RERP has been adopted (signed) by Butler Township but not Conyngam Borough. Please provide evidence that Conyngam Borough has adopted the RERP.

**Answer A1:**

The Butler Township/Conyngam Borough RERP has been signed by Conyngam Borough.

**Question A2:**

The Huntington Township/New Columbus Borough RERP has been adopted (signed) by New Columbus but not Huntington Township. Please provide evidence that Huntington Township has adopted the RERP.

**Answer A2:**

The Huntington Township/New Columbus Borough RERP has been signed by Huntington Township.

**Question A3:**

The Nescopeck Township RERP cover is marked as a "Draft" with a date of 12/2003. The plan includes a notation that it was updated 2008 in lower right corner. Please provide an amended plan cover without the "Draft" notation.

**Answer A3:**

The Nescopeck Township RERP "draft" notation has been removed.

**35. Question:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 21 identifies agreements with support organizations, but no actual agreements or descriptions with signatory pages per are included as required by NUREG Criterion A.3. Please provide copies of the listed agreements or descriptions of each agreement with a signature page.

**Answer:**

The Annual Letter of Certification from PEMA to FEMA addresses Agreements. Agreements are available for inspection in the PEMA offices.

**36. Question:**

Support County Nuclear/Radiological Incident Plans do not contain block diagrams; the NUREG cross reference indicates that this diagram is "TBD."

**Answer:**

Support County Nuclear/Radiological Incident Plans have been revised to provide block diagrams in Appendix 12.

**37. Question A:**

Risk Municipality RERPs, Section V.A-I *Emergency Responsibilities and Functions*, and Section VI *Emergency Management Organization* do not provide a table or comparable clear and concise summary showing how the emergency responsibilities are discharged. Please provide a table or comparable clear and concise summary showing how the emergency responsibilities are discharged.

**Answer A:**

Risk Municipality RERPs have been revised to include a table of responsibilities in Section VI, *Emergency Management Organization*.

**Question B:**

Support County Nuclear/Radiological Incident Plans, Section 4.B *Organizations and Responsibility* do not provide a table or comparable clear and concise summary showing how the emergency responsibilities are discharged. The Support County plans also do not list all of the functions and responsibilities of the response organizations. Please provide a table or comparable clear and concise summary showing how the emergency responsibilities are discharged.

**Answer B:**

Support County Nuclear/Radiological Incident Plans have been revised to provide a table of responsibilities in Appendix 12.

**38. Question:**

Support County Nuclear/Radiological Incident Plans, Enclosure 2, *Staffing Status Flowchart* lack any specific requirements for protracted operations (although it is noted on Enclosure 2, *Staffing Status Flowchart*) and do not assign a lead individual for continuity of operations. Please provide information describing requirements for protracted operations and assigning a lead individual for continuity of operations.

**Answer:**

Support County Nuclear/Radiological Incident Plans have been revised to give direction to the county emergency management coordinator to ensure that staffing is planned for protracted operation in Section 3.H.2.c.

**39. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E, Appendix 5, Section 6, *Radiological Exposure Control for Emergency Workers*, says that emergency workers should use their suitable personal clothing as protective gear. However, BRP-ER-A-6.02 *Emergency Equipment Operational Checks and Maintenance*, identifies the protective equipment (including coveralls, shoe covers and gloves) carried in the BRP emergency response vehicles. Please provide amended plan pages showing consistent policy regarding protective equipment for emergency workers.

**Answer A:**

The Commonwealth of Pennsylvania Emergency Operations Plan, Annex A has been revised to specify gloves for monitoring teams and to provide instruction for use of personal clothing as protective gear. Volunteer emergency workers on the county and municipal staffs, other than monitoring and decontamination teams, are not assigned duties that require protective equipment. BRP staff members may be assigned emergency duties which would require protective equipment, so their vans are stocked with appropriate gear.

**Question B:**

Risk County RERPs, Appendix 13, Attachment A, Section D.6 say that personnel monitors should wear disposable or plastic gloves while monitoring. Additionally, it is suggested that shirts/blouses with long sleeves and long trousers/slacks be worn. No additional information is provided regarding the availability, storage or inventory of protective equipment (e.g. gloves, paper suits, booties, etc). Please provide information addressing protective equipment for use by emergency workers (especially monitoring/ decontamination personnel (e.g. gloves, paper suits, booties, etc)).

**Answer B:**

Risk County RERPs contain direction to inventory and maintain gloves for monitoring teams in Appendix 13, Attachment B, Inventory and Maintenance Procedures. No other protective equipment is provided. Direction has been added to the Risk County RERPs describing how to use personal clothing and items for protection.

**Question C:**

Risk Municipality RERPs, Attachment I-5 list the dosimetry, KI, and area kits provided to municipality emergency responders during emergencies. No information is provided regarding the availability, storage or inventory of protective equipment (e.g. gloves, paper suits, booties, etc). Please provide information addressing protective equipment for use by emergency workers (e.g. gloves, paper suits, booties, etc).

**Answer C:**

Risk Municipalities do not have protective clothing. Direction has been added to the Police Services and Fire and Rescue SOPs describing how to use personal clothing and items for protection.

**Question D:**

Support County Nuclear/Radiological Incident Plans, Appendix 4 *Monitoring/ Decontamination Procedures* say that personnel monitors should wear disposable or plastic gloves while monitoring. It is suggested that shirts/blouses with long sleeves and long trousers/slacks be worn. No additional information is provided regarding the availability, storage or inventory of protective equipment (e.g. gloves, paper suits, booties, etc). Please provide information addressing protective equipment for use by emergency workers (especially monitoring/ decontamination personnel (e.g. gloves, paper suits, booties, etc)).

**Answer D:**

Direction to inventory and maintain gloves for monitoring teams has been provided in Support County Nuclear/Radiological Incident Plans, Appendix 5. No other protective equipment is provided. Direction has been added to the Risk County RERPs describing how to use personal clothing and items for protection.

**40. Question:**

Support County Nuclear/Radiological Incident Plans do not describe the communications links that would be used for notification and the arrangements for 24-hour receipt and communication

of emergencies. Please provide information describing communications links that would be used for notification and the arrangements for 24-hour receipt and communication of emergencies.

**Answer:**

The SEVAN System, the 800 MHZ EM net, and regular telephone lines are used to communicate with the Support Counties. Section 3.G. of the plan describes the communication links. All counties in Pennsylvania have 911 systems which are 24/7 operations. 4 PA CODE CHAPTER 120d defines the training requirements for 911 center personnel.

**41. Question:**

Support County Nuclear/Radiological Incident Plans do not identify any coordinated communication link for fixed and mobile medical support facilities. Please provide information identifying any coordinated communication link for fixed and mobile medical support facilities.

**Answer:**

Support County 911 centers communicate with hospitals and ambulances via VHF and UHF radio systems.

**42. Question:**

Support County Nuclear/Radiological Incident Plans do not address testing of the emergency communications system. Please provide information describing testing of the emergency communications system.

**Answer:**

Section 3.G. of the Support County Nuclear/Radiological Incident Plans addresses testing of communication links.

**43. Question A1:**

Support County Nuclear/Radiological Incident Plans (except Montour), Appendix 4, Section D.3 *Calculations of the Number of Personnel That Can be Monitored in 12 Hours*, indicates that 300 individuals per hour can be monitored with a portal monitor. Information is not provided on how the monitors are set up to accomplish this throughput. As stated, 300 individuals per hour would allow only 12 seconds per individual and does not account for transit time between individuals or any other circumstances that would cause monitoring delays (providing instructions, re-monitoring to verify alarms, etc). Please provide plan material explaining how 300 individuals per hour will be monitored with a portal monitor.

**Answer A1:**

All public monitoring facilities are equipped with Thermo (Bicron) TPM 903 portal monitors. These are walk-through machines, so the 12 seconds per person is essentially all transit time. Instructions are given to people in line, and they can see the people in front of them. Given the equipment provided, 300 people per hour is a reasonable processing rate for planning purposes. No further action is planned.

**Question A2:**

Northumberland and Schuylkill County Nuclear/Radiological Incident Plans do not indicate that they have portal monitors nor do they specify which type of hand-held survey instruments are in use; therefore, it cannot be determined if there is sufficient equipment/personnel allocated to monitor the evacuees assigned to their facilities within 12 hours. Provide information to verify contamination monitoring capacity to meet the requirement.

**Answer A2:**

Both counties have TPM 903 portal monitors and REP compliant hand held devices. Directions for their use are contained in the plans. No further action is planned.

**44. Question A:**

Commonwealth of Pennsylvania Emergency Operations Plan, Annex E does not include references specific to Bell Bend Nuclear Power Station or information from the most recent Evacuation Time Estimate. Amend all relevant plan areas per letters of agreement submitted with the license application to include specific references to Bell Bend Nuclear Power Station and the most recent Evacuation Time Estimate.

**Answer A:**

A final decision by PPL to build the Bell Bend plant has not yet been made. The Bell Bend COL application is undergoing NRC review, with a license currently projected in 2013. Given this timeline, PPL does not believe that it is prudent to incorporate Bell Bend information into plans which are currently in use; to do so could be misleading and/or distracting. Bell Bend information will be staged for issuance in a timely manner well before the plant is ready for its first Emergency Response Plan exercise. This exercise is required prior to initial fuel load.

The revised Evacuation Time Estimate study is referenced in the Commonwealth of Pennsylvania Emergency Operations Plan, Annex A.

**Question B:**

Risk County RERPs do not include references specific to Bell Bend Nuclear Power Station or information from the most recent Evacuation Time Estimate. Amend all relevant plan areas per letters of agreement submitted with the license application to include specific references to Bell Bend Nuclear Power Station and the most recent Evacuation Time Estimate.

**Answer B:**

A final decision by PPL to build the Bell Bend plant has not yet been made. The Bell Bend COL application is undergoing NRC review, with a license currently projected in 2013. Given this timeline, PPL does not believe that it is prudent to incorporate Bell Bend information into plans which are currently in use; to do so could be misleading and/or distracting. Bell Bend information will be staged for issuance in a timely manner well before the plant is ready for its first Emergency Response Plan exercise. This exercise is required prior to initial fuel load.

The revised Evacuation Time Estimate study is referenced in the Risk County RERPs, as referenced in Appendix 10.

**Question C:**

Risk Municipality RERPs do not include references specific to bell Bend Nuclear Power Station or information from the most recent evacuation Time Estimate. Amend all relevant plan areas per letters of agreement submitted with the license application to include specific references to Bell Bend Nuclear Power Station and the most recent Evacuation Time Estimates.

**Answer C:**

A final decision by PPL to build the Bell Bend plant has not yet been made. The Bell Bend COL application is undergoing NRC review, with a license currently projected in 2013. Given this timeline, PPL does not believe that it is prudent to incorporate Bell Bend information into plans which are currently in use; to do so could be misleading and/or distracting. Bell Bend information will be staged for issuance in a timely manner well before the plant is ready for its first Emergency Response Plan exercise. This exercise is required prior to initial fuel load.

The revised Evacuation Time Estimate study is referenced in the Risk Municipality RERPs , Section VIII.D.

**Question D:**

Support County Nuclear/Radiological Incident Plans do not include references Specific to bell Bend Nuclear Power Station or information from the most recent evacuation Time Estimate. Amend all relevant plan areas per letters of agreement submitted with the license application to include specific references to Bell Bend Nuclear Power Station and the most recent Evacuation Time Estimates.

**Answer D:**

A final decision by PPL to build the Bell Bend plant has not yet been made. The Bell Bend COL application is undergoing NRC review, with a license currently projected in 2013. Given this timeline, PPL does not believe that it is prudent to incorporate Bell Bend information into plans which are currently in use; to do so could be misleading and/or distracting. Bell Bend information will be staged for issuance in a timely manner well before the plant is ready for its first Emergency Response Plan exercise. This exercise is required prior to initial fuel load.

The revised Evacuation Time Estimate study is referenced in the Support County Nuclear/Radiological Incident Plans, Section 7.B.

Enclosure 2

List of Supporting Documentation for Enclosure 1

## Documents Included with this submittal:

- 1) Commonwealth of Pennsylvania Nuclear/radiological Plan, Annex A, Nuclear Power Plant Incidents
- 2) Columbia County Radiological Emergency response Plan to nuclear Power Plant Incidents
- 3) Luzerne County Radiological Emergency response Plan to nuclear Power Plant Incidents
- 4) Montour County Emergency Management Agency Nuclear/Radiological Incident Plan
- 5) Union County Emergency Management Agency Nuclear/Radiological Incident Plan
- 6) Lycoming County Emergency Management Agency Nuclear/Radiological Incident Plan
- 7) Schuylkill County Emergency Management Agency Nuclear/Radiological Incident Plan
- 8) Wyoming County Emergency Management Agency Nuclear/Radiological Incident Plan
- 9) Northumberland County Emergency Management Agency Nuclear/Radiological Incident Plan
- 10) Lackawanna County Emergency Management Agency Nuclear/Radiological Incident Plan
- 11) Black Creek Township Radiological Emergency Response Plan
- 12) Butler Township/Conyngham Borough Radiological Emergency Response Plan
- 13) Conyngham Township Radiological Emergency Response Plan
- 14) Dorrance Township Radiological Emergency Response Plan
- 15) Hollenback Township Radiological Emergency Response Plan
- 16) Hunlock Township Radiological Emergency Response Plan
- 17) Huntington Township/New Columbus Borough Radiological Emergency Response Plan
- 18) Nanticoke City Radiological Emergency Response Plan
- 19) Nescopeck Borough Radiological Emergency Response Plan
- 20) Nescopeck Township Radiological Emergency Response Plan
- 21) Newport Township Radiological Emergency Response Plan
- 22) Nuangola Borough Radiological Emergency Response Plan
- 23) Salem Township Radiological Emergency Response Plan
- 24) Shickshinny Borough Radiological Emergency Response Plan
- 25) Slocum Township Radiological Emergency Response Plan
- 26) Sugarloaf Township Radiological Emergency Response Plan
- 27) Union Township Radiological Emergency Response Plan
- 28) Beaver Township Radiological Emergency Response Plan
- 29) Berwick/ Briar Creek Borough Radiological Emergency Response Plan
- 30) Briar Creek Township Radiological Emergency Response Plan
- 31) Fishing Creek Township Radiological Emergency Response Plan

- 32) Mifflin Township South Centre Township Fishing Creek Township Radiological Emergency Response Plan
- 33) North Centre Township South Centre Township Fishing Creek Township Radiological Emergency Response Plan
- 34) South Centre Township Fishing Creek Township Radiological Emergency Response Plan
- 35) Susquehanna Steam Electric Station/Bell Bend development of Evacuation time Estimates (See Enclosure 4 for document and DVD)
- 36) Pennsylvania BRP memorandum on training, 2/25/2010.

Enclosure 3

Electronic copy of Documents listed in Enclosure 2

Enclosure 4

Electronic copy of Evacuation Time Estimate Study