

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU17 - Off-Site Rail and Road Systems

SSC: Nevada Rail Subsystem

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Offsite Rail and Road System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Offsite Rail and Road System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Offsite Rail and Road System is not contained on the Q-List. QA Classification Analysis of Off-Site Transportation, BCB100000-01717-2200-00001 Rev 00, determined that Off-site Transportation SSCs are not required to be licensed or certified in accordance with QAP-2-3, which provides evaluation criteria for SSCs to be licensed or certified in accordance with NRC regulation.

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SDD: SU17 - Off-Site Rail and Road Systems

SSC: Nevada Road Subsystem

Level 4: N/A

Level 3: N/A

Level 5: N/A

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|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Nevada Road Subsystem performs no radiological safety functions. QA Classification Analysis of Off-Site Transportation, BCBI00000-01717-2200-00001 Rev 00, determined that Off-site Transportation SSCs are not required to be licensed or certified in accordance with QAP-2-3, which provides evaluation criteria for SSCs to be licensed or certified in accordance with NRC regulation. No further classification required or appropriate. Remainder of checklist is not applicable.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

There are no postulated Design Basis Events that require this SSC to function.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

There are no scenarios where direct failure of the Offsite Rail and Road System would result in a postulated DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Offsite Rail and Road System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Offsite Rail and Road System will not affect characteristics of the natural or engineered barriers.

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SDD: SU17 - Off-Site Rail and Road Systems

SSC: Nevada Road Subsystem

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Offsite Rail Road System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Offsite Rail and Road System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Offsite Rail and Road System is not expected to impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Offsite Rail and Road System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Offsite Rail and Road System performs no special nuclear material accountability function.

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SDD: SU17 - Off-Site Rail and Road Systems

SSC: Nevada Road Subsystem

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Offsite Rail and Road System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Offsite Rail and Road System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Offsite Rail and Road System is not contained on the Q-List. QA Classification Analysis of Off-Site Transportation, BCB100000-01717-2200-00001 Rev 00, determined that Off-site Transportation SSCs are not required to be licensed or certified in accordance with QAP-2-3, which provides evaluation criteria for SSCs to be licensed or certified in accordance with NRC regulation.

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Attachment IV

SDD: SU17 - Off-Site Rail and Road Systems

SSC: Transportation Support Depots and Facilities

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Transportation Support Depots and Facilities performs no radiological safety functions. QA Classification Analysis of Off-Site Transportation, BCB100000-01717-2200-00001 Rev 00, determined that Off-site Transportation SSCs are not required to be licensed or certified in accordance with QAP-2-3, which provides evaluation criteria for SSCs to be licensed or certified in accordance with NRC regulation. No further classification required or appropriate. Remainder of checklist is not applicable.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

There are no postulated Design Basis Events that require this SSC to function.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

There are no scenarios where direct failure of the Offsite Rail and Road System would result in a postulated DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Offsite Rail and Road System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Offsite Rail and Road System will not affect characteristics of the natural or engineered barriers.

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Attachment IV

SDD: SU17 - Off-Site Rail and Road Systems

SSC: Transportation Support Depots and Facilities

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Offsite Rail Road System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Offsite Rail and Road System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Offsite Rail and Road System is not expected to impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Offsite Rail and Road System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Offsite Rail and Road System performs no special nuclear material accountability function.

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SDD: SU17 - Off-Site Rail and Road Systems

SSC: Transportation Support Depots and Facilities

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Offsite Rail and Road System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Offsite Rail and Road System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Offsite Rail and Road System is not contained on the Q-List. QA Classification Analysis of Off-Site Transportation, BCBI00000-01717-2200-00001 Rev 00, determined that Off-site Transportation SSCs are not required to be licensed or certified in accordance with QAP-2-3, which provides evaluation criteria for SSCs to be licensed or certified in accordance with NRC regulation.

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: Backup Electrical Power Distribution System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
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QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Backup Electrical Power Distribution System provides backup power to SSCs important to maintaining safety and is required to provide assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Backup Electrical Power Distribution System provides backup power to SSCs important to maintaining safety and is required to prevent, mitigate, and monitor a credible DBE which might otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Failure of the Backup Electrical Power Distribution System during loss of normal power to QA-1 SSCs may result in a DBE and possible radioactive release above federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Backup Electrical Power Distribution System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Failure of the Backup Electrical Power Distribution System is not expected to affect the characteristics of the natural or engineered barriers.

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: Backup Electrical Power Distribution System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Backup Electrical Power Distribution System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Backup Electrical Power Distribution System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Backup Electrical Power Distribution System as a result of a DBE could impair the capability of QA-1 SSCs such as HVAC from performing their radiological safety function. During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Backup Electrical Power Distribution System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Backup Electrical Power Distribution System performs no special nuclear material accountability function.

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: Backup Electrical Power Distribution System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Backup Electrical Power Distribution System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Backup Electrical Power Distribution System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Backup Electrical Power Distribution System is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.2 Emergency and Backup Power Generator System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: Electrical Power Distribution System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
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QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Electrical Power Distribution System for the Waste Handling Facility may perform radiological safety functions to provide reasonable assurance that high-level waste can be handled without exceeding the federal limits. However, the final design will provide a power supply to QA-1 and QA-2 SSCs which is supplied by emergency backup power or UPS.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

There are no postulated DBEs that require the Electrical Power Distribution System to function

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

There are no scenarios where failure of the Electrical Power Distribution System would result in a postulated DBE

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Electrical Power Distribution System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Failure of the Electrical Power Distribution System will not affect the characteristics of the natural or engineered barriers

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: Electrical Power Distribution System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Electrical Power Distribution System performs no site-generated waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Electrical Power Distribution System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Electrical Power Distribution System as a result of a DBE could impair the capability of QA-1 and QA-2 SSCs from performing their radiological safety or waste isolation function. During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Electrical Power Distribution System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Electrical Power Distribution System performs no special nuclear material accountability function.

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: Electrical Power Distribution System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Electrical Power Distribution System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Electrical Power Distribution System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Electrical Power Distribution System is contained on the Q-List by direct inclusion of the Underground Service and Utility Systems for the Power Distribution System.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: UPS System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The UPS System ensures continued operation for the Waste Handling Facility which controls and monitors the QA-1 HVAC system during loss of normal power or DBEs and may be required to provide reasonable assurance that high-level waste can be handled without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The UPS System function that powers the Waste Handling Facility during loss of power is required to prevent, mitigate, or monitor a QA-1 HVAC failure DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Failure of the UPS System during loss of normal power may prevent the HVAC system from functioning which may lead to a radioactive release above federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The UPS System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Failure of the UPS System will not affect the characteristics of the natural or engineered barriers.

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SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: UPS System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The UPS System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The UPS System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the UPS System during a DBE would not impair the capability of QA-1 equipment such as the HVAC system, from performing its radiological safety function. During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The UPS System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The UPS System performs no special nuclear material accountability function.

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Electrical Power Systems

Level 4: N/A

Level 3: UPS System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The UPS System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The UPS System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The UPS System is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.2 Emergency and Backup Power Generator System, as QA-1.

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: Emergency Lighting System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Emergency Lighting System does not perform any radiological safety functions.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Emergency Lighting System is not required to function to prevent, mitigate, or monitor a DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Failure of the Emergency Lighting System will not result in a DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Emergency Lighting System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Failure of the Emergency Lighting System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: Emergency Lighting System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Emergency Lighting System performs no site-generated radioactive waste control functions.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Emergency Lighting System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Emergency Lighting System as a result of a DBE would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Emergency Lighting System does not provide a physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Emergency Lighting System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: Emergency Lighting System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Emergency Lighting System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Emergency Lighting System performs no radiological monitoring functions.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Emergency Lighting System is contained on the Q-List by direct inclusion of the Waste Handling Building for the Surface Facilities.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: General Lighting System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:
The General Lighting System performs no radiological safety functions.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:
There are no postulated DBEs that require the General Lighting System to function.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:
There are no scenarios where failure of the General Lighting System would result in a postulated DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:
The General Lighting System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:
The General Lighting System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: General Lighting System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The General Lighting System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The General Lighting System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the General Lighting System will not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The General Lighting System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The General Lighting System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: General Lighting System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The General Lighting System does not provide radiation shielding, reduce radiological dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

This SSC is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The General Lighting System is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1 Waste Handling Building, as QA-1.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: In-Cell Lighting System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The In-Cell Lighting System performs no radiological safety functions.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

There are no postulated DBEs that require the In-Cell Lighting System to function

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

There are no scenarios where failure of the In-Cell Lighting System would result in a postulated DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The In-Cell Lighting System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The In-Cell Lighting System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: In-Cell Lighting System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The In-Cell Lighting System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The In-Cell Lighting System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the In-Cell Lighting System will not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The In-Cell Lighting System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The In-Cell Lighting System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lighting Systems

Level 4: N/A

Level 3: In-Cell Lighting System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The In-Cell Lighting System does not provide radiation shielding, reduce radiological dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

This SSC is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The In-Cell Lighting System is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1 Waste Handling Building, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lightning Protection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Lightning Protection System does not provide any radiological safety functions.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Lightning Protection System is expected to be required to prevent, mitigate, or monitor a credible lightning DBEs which would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Failure of the Lightning Protection System will not result in a credible DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Lightning Protection System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Failure of the Lightning Protection System will not directly affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lightning Protection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Lightning Protection System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Lightning Protection System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Lightning Protection System as a result of a DBE would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Lightning Protection System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Lightning Protection System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU18 - Waste Handling Facility Electrical System

SSC: Lightning Protection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Lightning Protection System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Lightning Protection System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Lightning Protection System is contained on the Q-List by direct inclusion of the Waste Handling Building Utilities for the Surface Facilities.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Non-Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Non-Nuclear HVAC System is not required to perform any radiological safety functions. This system only provides ventilation for various contamination free areas such as the Carrier Bay and offices.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Non-Nuclear HVAC System is not required to function to prevent, mitigate, or monitor a credible DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Non-Nuclear HVAC System will not result in a DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Non-Nuclear HVAC System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Non-Nuclear HVAC System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Non-Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Non-Nuclear HVAC System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Non-Nuclear HVAC System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Non-Nuclear HVAC System as a result of a DBE may impair the capability of QA-1 SSCs in the Carrier Bay from performing their radiological safety functions by collapse on these SSCs.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Non-Nuclear HVAC System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Non-Nuclear HVAC System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Non-Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Non-Nuclear HVAC System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Non-Nuclear HVAC System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Non-Nuclear HVAC System is contained on the Q-List by direct inclusion of the Waste Handling Building for the Surface Facilities.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Primary Confinement System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Primary Confinement Nuclear HVAC System in the waste handling building is required to perform radiological safety functions which provide reasonable assurance that federal limits are not exceeded.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Primary Nuclear HVAC System is required to function to prevent, mitigate, or monitor a credible DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Primary Nuclear HVAC System will not result in a DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Primary Nuclear HVAC System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Primary Nuclear HVAC System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Primary Confinement System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Nuclear HVAC Systems perform no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Nuclear HVAC System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

By meeting requirements of Question 1.2, failure of the Nuclear HVAC System as a result of a DBE would not impair the capability of QA-1 SSCs in the Carrier Bay from performing their radiological safety functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Nuclear HVAC System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Nuclear HVAC System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Primary Confinement System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Nuclear HVAC System may have its own radioactive source term and will require personnel access.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Nuclear HVAC System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Nuclear HVAC System is contained on the Q-List by direct inclusion of the Waste Handling Building for the Surface Facilities.

Q-List Questions

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Secondary Confinement System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Secondary Confinement Nuclear HVAC System in the waste handling building is required to perform radiological safety functions which provide reasonable assurance that federal limits are not exceeded.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Secondary Nuclear HVAC System is required to function to prevent, mitigate, or monitor a credible DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Secondary Nuclear HVAC System will not result in a DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Secondary Nuclear HVAC System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Secondary Nuclear HVAC System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Secondary Confinement System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Nuclear HVAC Systems perform no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Nuclear HVAC System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

By meeting requirements of Question 1.2, failure of the Nuclear HVAC System as a result of a DBE would not impair the capability of QA-1 SSCs in the Carrier Bay from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Nuclear HVAC System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Nuclear HVAC System performs no nuclear material accountability function.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Secondary Confinement System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Nuclear HVAC System may have its own radioactive source term and will require personnel access.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Nuclear HVAC System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Nuclear HVAC System is contained on the Q-List by direct inclusion of the Waste Handling Building for the Surface Facilities.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Tertiary Confinement System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Tertiary Confinement Nuclear HVAC System in the waste handling building is required to perform radiological safety functions which provide reasonable assurance that federal limits are not exceeded.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Tertiary Nuclear HVAC System is required to function to prevent, mitigate, or monitor a credible DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Tertiary Nuclear HVAC System will not result in a DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Tertiary Nuclear HVAC System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Tertiary Nuclear HVAC System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Tertiary Confinement System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Nuclear HVAC Systems perform no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Nuclear HVAC System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

By meeting requirements of Question 1.2, failure of the Nuclear HVAC System as a result of a DBE would not impair the capability of QA-1 SSCs in the Carrier Bay from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Nuclear HVAC System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Nuclear HVAC System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU22 - Waste Handling Facility (WHF) Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: Tertiary Confinement System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Nuclear HVAC System may have its own radioactive source term and will require personnel access.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Nuclear HVAC System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Nuclear HVAC System is contained on the Q-List by direct inclusion of the Waste Handling Building for the Surface Facilities.

Q-List Questions

SDD: SU24 - Radiological Waste Treatment Facility Ventilation System

SSC: Non-Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Non-Nuclear HVAC System for the Radiological Waste Treatment Facility is not required to perform any radiological safety functions. This system only provides ventilation for various contamination free areas such as the Shipping/Receiving area, and offices.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Non-Nuclear HVAC System is not required to function to prevent, mitigate, or monitor a credible DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Non-Nuclear HVAC System will not result in a DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Non-Nuclear HVAC System is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Failure of the Non-Nuclear HVAC System will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU24 - Radiological Waste Treatment Facility Ventilation System

SSC: Non-Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Non-Nuclear HVAC System performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Non-Nuclear HVAC System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Non-Nuclear HVAC System as a result of a DBE is not expected to impair the capability of QA-1 SSCs from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Non-Nuclear HVAC System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Non-Nuclear HVAC System performs no physical protection function.

Q-List Questions

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Attachment IV

SDD: SU24 - Radiological Waste Treatment Facility Ventilation System

SSC: Non-Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Non-Nuclear HVAC System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Non-Nuclear HVAC System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Non-Nuclear HVAC System is contained on the Q-List by direct inclusion of the Support Facilities for the Waste Handling Building for the Surface Facilities.

Q-List Questions

SDD: SU24 - Radiological Waste Treatment Facility Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Nuclear HVAC System for the Radiological Waste Treatment Facility is required to perform radiological safety functions. This system provides ventilation for various radiologically controlled areas within the facility.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Nuclear HVAC System may be required to function to prevent, mitigate, or monitor a credible DBE.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Nuclear HVAC System will not result in a DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Radiological Waste Treatment Facility Nuclear HVAC System does not form part of the Natural or Engineered Barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Radiological Waste Treatment Facility Nuclear HVAC System will not significantly affect the Natural or Engineered Barriers.

Q-List Questions

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Attachment IV

SDD: SU24 - Radiological Waste Treatment Facility Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Nuclear HVAC System may collect gaseous radwaste which in turn performs a site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Nuclear HVAC System performs no fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Nuclear HVAC System as a result of a DBE is not expected to impair the capability of QA-1 SSCs from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Nuclear HVAC System performs no physical protection function.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Nuclear HVAC System performs no physical protection function.

Q-List Questions

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Attachment IV

SDD: SU24 - Radiological Waste Treatment Facility Ventilation System

SSC: Nuclear HVAC Systems

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Nuclear HVAC System does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Nuclear HVAC System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Nuclear HVAC System is contained on the Q-List by direct inclusion of the Support Facilities for the Waste Handling Building for the Surface Facilities.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Exhaust Stack Monitor System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Exhaust Stack Monitor System for the WHF performs radiological monitoring for airborne contamination from potentially contaminated HVAC exhaust air, and is required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Exhaust Stack Monitor System for the WHF may be required to monitor a DBE which would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Exhaust Stack Monitor System for the WHF will not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Exhaust Stack Monitor System for the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Exhaust Stack Monitor System for the WHF will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Exhaust Stack Monitor System Level 4: N/A

Level 3: N/A Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Exhaust Stack Monitor System for the WHF may be required to monitor site-generated waste in the HVAC exhaust air.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Exhaust Stack Monitor System for the WHF does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Exhaust Stack Monitor System for the WHF is not expected to impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Exhaust Stack Monitor System for the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Exhaust Stack Monitor System for the WHF performs no special nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Exhaust Stack Monitor System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Exhaust Stack Monitor System for the WHF does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Exhaust Stack Monitor System for the WHF is a permanently installed radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Exhaust Stack Monitor System for the WHF is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1.7 Support Facilities for the Waste Handling Building, as QA-1, but the Exhaust Stack Monitor System for the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Operations Area Monitor Systems

Level 4: N/A

Level 3: Continuous Air Monitors

Level 5: N/A

| | | | | | | | |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Continuous Air Monitor System for the WHF monitors airborne contamination levels, and is required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Continuous Air Monitor System for the WHF may be required to monitor a DBE which would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Continuous Air Monitor System for the WHF will not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Continuous Air Monitor System for the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Continuous Air Monitor System for the WHF will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Operations Area Monitor Systems Level 4: N/A

Level 3: Continuous Air Monitors Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Continuous Air Monitor System for the WHF may be required to monitor site-generated waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Continuous Air Monitor System for the WHF does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The Continuous Air Monitor System for the WHF is not expected to impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Continuous Air Monitor System for the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Continuous Air Monitor System for the WHF performs no special nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Operations Area Monitor Systems Level 4: N/A

Level 3: Continuous Air Monitors Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Continuous Air Monitor System for the WHF does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Continuous Air Monitor System for the WHF is a permanently installed radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Continuous Air Monitor System for the WHF is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1.7 Support Facilities for the Waste Handling Building, as QA-1, but the Continuous Air Monitor System for the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Operations Area Monitor Systems

Level 4: N/A

Level 3: General Area Monitors

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The General Area Monitor System for the WHF is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The General Area Monitor System for the WHF may be required to monitor a DBE which would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the General Area Monitor System for the WHF will not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The General Area Monitor System for the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the General Area Monitor System for the WHF will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Operations Area Monitor Systems Level 4: N/A

Level 3: General Area Monitors Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The General Area Monitor System for the WHF may be required to monitor site-generated waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The General Area Monitor System for the WHF does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The General Area Monitor System for the WHF is not expected to impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The General Area Monitor System for the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The General Area Monitor System for the WHF performs no special nuclear material accountability function.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Operations Area Monitor Systems Level 4: N/A

Level 3: General Area Monitors Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The General Area Monitor System for the WHF does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The General Area Monitor System for the WHF is a permanently installed radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The General Area Monitor System for the WHF is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1.7 Support Facilities for the Waste Handling Building, as QA-1, but the General Area Monitor System for the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Process Monitor System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Process Monitor System for the WHF performs continuous radiological monitoring for process liquid effluents in the Waste Handling Facility, and is required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Process Monitor System for the WHF may be required to monitor a DBE which would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Process Monitor System for the WHF will not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Process Monitor System for the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Process Monitor System for the WHF will not affect the characteristics of the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Process Monitor System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Process Monitor System for the WHF may be required to monitor site-generated waste for the process systems in the Waste Handling Facility.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Process Monitor System for the WHF does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Process Monitor System for the WHF is not expected to impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Process Monitor System for the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Process Monitor System for the WHF performs no special nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU29 - Waste Handling Facility Radiological Monitoring System

SSC: Process Monitor System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Process Monitor System for the WHF does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Process Monitor System for the WHF is a permanently installed radiological process monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Process Monitor System for the WHF is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1.7 Support Facilities for the Waste Handling Building, as QA-1, but the Process Monitor System for the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Detection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Fire Detection System provides automatic monitoring, and annunciation of fire and potential fire conditions in the Waste Handling Facility (WHF), but performs no radiological safety functions that would provide reasonable assurance that high level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

Portions of the Fire Detection System in the WHF function to monitor potential fire condition DBEs that could result in radioactive releases above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Fire Detection System in the WHF will not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Fire Detection System in the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Fire Detection System in the WHF will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Detection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Fire Detection System in the WHF performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Fire Detection System in the WHF protects QA-1 SSCs from the effects of fire by initiating the Waste Handling Facility fire suppression system.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Fire Detection System in the WHF will not impair the capability of QA-1 and QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Fire Detection System in the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Fire Detection System in the WHF performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Detection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Fire Detection System in the WHF does not provide radiation shielding, reduce radiological dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Fire Detection System in the WHF performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Fire Detection System in the WHF was previously on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.11 Fire Protection System, as QA-1; but the Fire Detection System in the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Chemical System (as required)

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Chemical System provides Carbon Dioxide, Halon, dry chemical, foam or other chemical fire fighting agents to extinguish potential fire conditions in the Waste Handling Facility (WHF), but performs no radiological safety functions that would provide reasonable assurance that high level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Chemical System in the WHF functions to mitigate potential fire condition DBEs that could result in radioactive releases above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Chemical System in the WHF will not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Chemical System in the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Chemical System in the WHF will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Chemical System (as required)

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes?

Rationale:

The Chemical System in the WHF performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes?

Rationale:

The Chemical System in the WHF protects QA-1 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes?

Rationale:

Failure of the Chemical System in the WHF as a result of a DBE may impair the capability of QA-1 SSCs in the WHF from performing their radiological safety functions due to a missile or flooding hazard.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes?

Rationale:

The Chemical System in the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes?

Rationale:

The Chemical System in the WHF performs no special nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Chemical System (as required)

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Chemical System in the WHF does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Chemical System in the WHF performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Chemical System in the WHF was previously on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.11 Fire Protection System, as QA-1; but the Chemical System in the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Deluge System (as required)

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Deluge System provides water to extinguish potential fire conditions in the Waste Handling Facility (WHF), but performs no radiological safety functions that would provide reasonable assurance that high level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Deluge System in the WHF functions to mitigate potential fire condition DBEs that could result in radioactive releases above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Deluge System in the WHF could result in a postulated criticality DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Deluge System in the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Deluge System in the WHF will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Deluge System (as required)

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Deluge System in the WHF performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Deluge System in the WHF protects QA-1 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Deluge System in the WHF as a result of a DBE may impair the capability of QA-1 SSCs in the WHF from performing their radiological safety functions due to a missile or flooding hazard.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Deluge System in the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Deluge System in the WHF performs no special nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Deluge System (as required)

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Deluge System in the WHF does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Deluge System in the WHF performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Deluge System in the WHF was previously on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.11 Fire Protection System, as QA-1; but the Deluge System in the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Sprinkler System

Level 5: N/A

| | | | | | | | |
|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Sprinkler System provides water spray to extinguish potential fire conditions in the Waste Handling Facility (WHF), but performs no radiological safety functions that would provide reasonable assurance that high level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Sprinkler System in the WHF functions to mitigate potential fire condition DBEs that could result in radioactive releases above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Sprinkler System in the WHF could result in a postulated criticality DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Sprinkler System in the WHF is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Sprinkler System in the WHF will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Sprinkler System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Sprinkler System in the WHF performs no site-generated radioactive waste control function.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Sprinkler System in the WHF protects QA-1 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Sprinkler System in the WHF as a result of a DBE may impair the capability of QA-1 SSCs in the WHF from performing their radiological safety functions due to a missile or flooding hazard.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Sprinkler System in the WHF does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Sprinkler System in the WHF performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU33 - Waste Handling Facility Fire Protection System

SSC: Fire Suppression Systems

Level 4: N/A

Level 3: Sprinkler System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Sprinkler System in the WHF does not provide radiation shielding, reduce dose rates, or have its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Sprinkler System in the WHF performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Sprinkler System in the WHF was previously on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.11 Fire Protection System, as QA-1; but the Sprinkler System in the WHF has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems

Level 4: N/A

Level 3: Evaporation System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Evaporation System concentrates aqueous LLW. Handling of site-generated liquid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Evaporation System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Evaporation System may result in a DBE that would lead to a radioactive release above the federal limits due to the concentration of radioactive waste.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Evaporation System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Evaporation System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems Level 4: N/A

Level 3: Evaporation System Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Evaporation System processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Evaporation System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Evaporation System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function other than what was already identified in Question 1.3.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Evaporation System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Evaporation System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems

Level 4: N/A

Level 3: Evaporation System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Evaporation System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Evaporation System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Evaporation System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Evaporation System has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems

Level 4: N/A

Level 3: Ion Exchange System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Ion Exchange System treats aqueous LLW for reuse or disposal. Handling of site-generated liquid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Ion Exchange System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Ion Exchange System may result in a DBE that would lead to a radioactive release above the federal limits due to the concentration of activity of the waste ion exchange resin.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Ion Exchange System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the The Ion Exchange System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems

Level 4: N/A

Level 3: Ion Exchange System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Ion Exchange System processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Ion Exchange System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the the Ion Exchange System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function other than what was already identified in Question 1.3..

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Ion Exchange System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Ion Exchange System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems

Level 4: N/A

Level 3: Recycle Water System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Recycled Water System distributes slightly radioactive water for reuse in potentially contaminated systems. Handling of site-generated liquid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Recycled Water System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Recycled Water System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Recycled Water System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Recycled Water System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems **Level 4: N/A**

Level 3: Recycle Water System **Level 5: N/A**

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? **Rationale:**

The Recycled Water System collects, and processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? **Rationale:**

The Recycled Water System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? **Rationale:**

Failure of the Recycled Water System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? **Rationale:**

The Recycled Water System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? **Rationale:**

The Recycled Water System performs no nuclear material accountability function.

Q-List Questions

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems **Level 4: N/A**

Level 3: Recycle Water System **Level 5: N/A**

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? **Rationale:**

The Recycled Water System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? **Rationale:**

The Recycled Water System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? **Rationale:**

The Recycled Water System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Recycled Water System has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems

Level 4: N/A

Level 3: Waste Collection System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Waste Collection System collects aqueous LLW for treatment. Handling of site-generated liquid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Waste Collection System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Waste Collection System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Waste Collection System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Waste Collection System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems **Level 4: N/A**

Level 3: Waste Collection System **Level 5: N/A**

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Waste Collection System collects, and processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Waste Collection System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Waste Collection System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Waste Collection System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Waste Collection System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Aqueous LLW Processing Systems

Level 4: N/A

Level 3: Waste Collection System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Waste Collection System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Waste Collection System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Waste Collection System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Waste Collection System has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems

Level 4: N/A

Level 3: Packaging System (Chemical LLW Processing Systems)

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Packaging System (Chemical LLW Processing Systems) solidifies chemical LLW for off-site shipment. Handling of site-generated liquid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Packaging System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Packaging System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Packaging System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Packaging System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems Level 4: N/A

Level 3: Packaging System (Chemical LLW Processing Systems) Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes?

Rationale:

The Packaging System collects and processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes?

Rationale:

The Packaging System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes?

Rationale:

Failure of the Packaging System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes?

Rationale:

The Packaging System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes?

Rationale:

The Packaging System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems Level 4: N/A

Level 3: Packaging System (Chemical LLW Processing Systems) Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Packaging System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Packaging System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Packaging System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Packaging System has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems

Level 4: N/A

Level 3: pH Adjustment System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The pH Adjustment System neutralizes chemical LLW for treatment. Handling of site-generated liquid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The pH Adjustment System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the pH Adjustment System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The pH Adjustment System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the pH Adjustment System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems

Level 4: N/A

Level 3: pH Adjustment System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The pH Adjustment System processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The pH Adjustment System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the pH Adjustment System could have a failure mode resulting in a fire or explosion DBE if incompatible hazardous chemicals are mixed. However, it is expected that the pH Adjustment System will be designed and located to preclude these hazards from causing a radioactive release.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The pH Adjustment System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The pH Adjustment System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems

Level 4: N/A

Level 3: pH Adjustment System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The pH Adjustment System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The pH Adjustment System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The pH Adjustment System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the pH Adjustment System has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems

Level 4: N/A

Level 3: Waste Collection System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Waste Collection System collects chemical LLW for treatment. Handling of site-generated liquid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Waste Collection System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Waste Collection System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Waste Collection System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Waste Collection System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems Level 4: N/A

Level 3: Waste Collection System Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes?

Rationale:

The Waste Collection System collects site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes?

Rationale:

The Waste Collection System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes?

Rationale:

Failure of the Waste Collection System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes?

Rationale:

The Waste Collection System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes?

Rationale:

The Waste Collection System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Chemical LLW Processing Systems Level 4: N/A

Level 3: Waste Collection System Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Waste Collection System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Waste Collection System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Waste Collection System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Waste Collection System has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Compaction System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Compaction System reduces the volume of solid LLW for off-site shipment. Handling of site-generated solid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Compaction System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Compaction System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Compaction System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Compaction System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems Level 4: N/A

Level 3: Compaction System Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Compaction System processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Compaction System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Compaction System in the Radiological Waste Treatment Facility as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Compaction System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Compaction System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Compaction System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Compaction System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Compaction System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Compaction System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Compaction System has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems Level 4: N/A

Level 3: Packaging System Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:
The Packaging System packages the solid LLW for off-site shipment. Handling of site-generated solid low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:
The Packaging System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:
Direct failure of the Packaging System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:
The Packaging System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:
Direct failure of the Packaging System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Packaging System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Packaging System collects, and processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Packaging System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Packaging System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Packaging System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Packaging System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Packaging System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Packaging System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Packaging System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Packaging System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Packaging System has not been specifically analyzed or included on the Q-List.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Resin Slurry Dewatering System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Resin Slurry Dewatering System decants the water from ion exchange resins so that the resin can be solidified for off-site shipment. Handling of site-generated low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Resin Slurry Dewatering System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Resin Slurry Dewatering System may result in a DBE that would lead to a radioactive release above the federal limits due to the concentration of activity of the waste ion exchange resin.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Resin Slurry Dewatering System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Resin Slurry Dewatering System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems Level 4: N/A

Level 3: Resin Slurry Dewatering System Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Resin Slurry Dewatering System processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Resin Slurry Dewatering System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Resin Slurry Dewatering System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Resin Slurry Dewatering System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Resin Slurry Dewatering System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Resin Slurry Dewatering System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Resin Slurry Dewatering System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Resin Slurry Dewatering System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Resin Slurry Dewatering System has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Waste Reduction & Disassembly System

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Waste Reduction & Disassembly System provides handling equipment to reduce the volume of solid LLW. Handling of site-generated low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Waste Reduction & Disassembly System is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Waste Reduction & Disassembly System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Waste Reduction & Disassembly System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Waste Reduction & Disassembly System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems Level 4: N/A

Level 3: Waste Reduction & Disassembly System Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Waste Reduction & Disassembly System collects and processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Waste Reduction & Disassembly System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Waste Reduction & Disassembly System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Waste Reduction & Disassembly System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Waste Reduction & Disassembly System performs no nuclear material accountability function

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Waste Reduction & Disassembly System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Waste Reduction & Disassembly System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Waste Reduction & Disassembly System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Waste Reduction & Disassembly System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Waste Reduction & Disassembly System has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Waste Sorting System

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Waste Sorting System provides handling equipment to reduce the volume of solid LLW. Handling of site-generated low-level waste is not expected to exceed federal limits. Therefore, this system is not required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

Is not required to function to prevent, mitigate, or monitor any DBEs that would otherwise result in a radioactive release above federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Waste Sorting System would not result in a DBE that would lead to a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Waste Sorting System is not a part of the natural or engineered barriers important to waste isolation.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Waste Sorting System will not affect any characteristics of the natural or engineered barrier that would prevent them from performing their isolation function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Waste Sorting System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Waste Sorting System collects and processes site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Waste Sorting System does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Waste Sorting System as a result of a DBE will not impair QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Waste Sorting System does not provide for detection or alarm of unauthorized intrusions or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Waste Sorting System performs no nuclear material accountability function.

Q-List Questions

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Attachment IV

SDD: SU37 - Site-Generated Radioactive Waste Handling System

SSC: Solid LLW Processing Systems

Level 4: N/A

Level 3: Waste Sorting System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Waste Sorting System may require personnel access into radiation areas by its own radioactive source term.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Waste Sorting System performs no radiological monitoring function.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Waste Sorting System was previously on the Q-List by direct inclusion of the Site Generated Waste Collection Facilities, SSA 3.2.1.1.8, as QA-1 but the Waste Sorting System has not been specifically analyzed or included on the Q-List.

Q-List Questions

SDD: SU40 - Emergency Response System

SSC: Emergency Response System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:
The Emergency Response System provides emergency response to accident conditions at or near the repository. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:
The Emergency Response System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:
Direct failure of the Emergency Response System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:
The Emergency Response System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:
Direct failure of the Emergency Response System would not affect the waste isolation functions performed by the natural and engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU40 - Emergency Response System

SSC: Emergency Response System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Emergency Response System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Emergency Response System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Emergency Response System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Emergency Response System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Emergency Response System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU40 - Emergency Response System

SSC: Emergency Response System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Emergency Response System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Emergency Response System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Emergency Response System is contained on the Q-List by direct inclusion for the Underground Services and Utility Systems, SSA 3.5.18 Emergency Services, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU40 - Emergency Response System

SSC: Fire Station

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Emergency Response Fire Station provides emergency response to accident conditions at or near the repository. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Emergency Response Fire Station is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Emergency Response Fire Station would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Emergency Response Fire Station does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Emergency Response Fire Station would not affect the waste isolation functions performed by the natural and engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU40 - Emergency Response System

SSC: Fire Station

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Emergency Response Fire Station is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Emergency Response Fire Station provides emergency response to accident conditions, which may include fire protection, at or near the repository.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Emergency Response Fire Station would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Emergency Response Fire Station is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Emergency Response Fire Station is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU40 - Emergency Response System

SSC: Fire Station

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Emergency Response Fire Station does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Emergency Response Fire Station is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Emergency Response Fire Station is contained on the Q-List by direct inclusion for the Underground Services and Utility Systems, SSA 3.5.18 Emergency Services, as QA-1.

Q-List Questions

SDD: SU40 - Emergency Response System

SSC: Medical Facility

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Emergency Response Medical Facility provides emergency response to accident conditions at or near the repository. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Emergency Response Medical Facility is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Emergency Response Medical Facility would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Emergency Response Medical Facility does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Emergency Response Medical Facility would not affect the waste isolation functions performed by the natural and engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU40 - Emergency Response System

SSC: Medical Facility

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Emergency Response Medical Facility is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Emergency Response Medical Facility does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Emergency Response Medical Facility would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Emergency Response Medical Facility is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Emergency Response Medical Facility is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU40 - Emergency Response System

SSC: Medical Facility

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Emergency Response Medical Facility does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Emergency Response Medical Facility is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Emergency Response Medical Facility is contained on the Q-List by direct inclusion for the Underground Services and Utility Systems, SSA 3.5.18 Emergency Services, as QA-1.

Q-List Questions

SDD: SU41 - Health Safety System

SSC: Health Monitoring & Records System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Health Monitoring and Records System maintains health and safety records to support the operational needs of the Administrative System. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Health Monitoring & Records System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Health Monitoring & Records System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Health Monitoring & Records System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Health Monitoring & Records System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Health Monitoring & Records System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Health Monitoring & Records System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Health Monitoring & Records System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Health Monitoring & Records System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Health Monitoring & Records System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Health Monitoring & Records System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Health Monitoring & Records System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Health Monitoring & Records System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Health Monitoring & Records System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Health Monitoring & Records System is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.12 Health Physics Stations, as QA-1.

Q-List Questions

SDD: SU41 - Health Safety System

SSC: Health Physics Laboratory System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Health Physics Laboratory System tests and manages personnel exposure to hazardous substances and radiation. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Health Physics Laboratory System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Health Physics Laboratory System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Health Physics Laboratory System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Health Physics Laboratory System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Health Physics Laboratory System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Health Physics Laboratory System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Health Physics Laboratory System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Health Physics Laboratory System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Health Physics Laboratory System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Health Physics Laboratory System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Health Physics Laboratory System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Health Physics Laboratory System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Health Physics Laboratory System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Health Physics Laboratory System is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.12 Health Physics Stations, as QA-1.

Q-List Questions

SDD: SU41 - Health Safety System

SSC: Instrumentation & Data System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Health Safety Instrumentation and Data System tests and manages personnel exposure to hazardous substances and radiation. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Health and Safety Instrumentation & Data System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Health and Safety Instrumentation & Data System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Health and Safety Instrumentation & Data System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Health and Safety Instrumentation & Data System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Instrumentation & Data System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Health and Safety Instrumentation & Data System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Health and Safety Instrumentation & Data System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Health and Safety Instrumentation & Data System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Health and Safety Instrumentation & Data System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Health and Safety Instrumentation & Data System is not required for special nuclear material accountability.

Q-List Questions

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SDD: SU41 - Health Safety System

SSC: Instrumentation & Data System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Health and Safety Instrumentation & Data System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Health and Safety Instrumentation & Data System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Instrumentation & Data System is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.12 Health Physics Stations, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Occupational Safety & Health

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Occupational Safety and Health System provides personnel monitoring and restrictions to access areas with radiological and hazardous material inventories. This SSC has no significant radiological safety or waste isolation function. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Occupational Safety & Health System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Occupational Safety & Health System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Occupational Safety & Health System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Occupational Safety & Health System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Occupational Safety & Health

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Occupational Safety & Health System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Occupational Safety & Health System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Occupational Safety & Health System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Occupational Safety & Health System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Occupational Safety & Health System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU41 - Health Safety System

SSC: Occupational Safety & Health

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Occupational Safety & Health System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Occupational Safety & Health System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Occupational Safety & Health System is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.12 Health Physics Stations, as QA-1.

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Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Fire & Emergency Response Communication

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Fire & Emergency Response System maintains site-wide and off-site voice, data and video communications. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Fire & Emergency Response System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Fire & Emergency Response System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Fire & Emergency Response System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Fire & Emergency Response System would not affect the waste isolation functions performed by the natural or engineered barriers.

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Fire & Emergency Response Communication

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Fire & Emergency Response System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Fire & Emergency Response System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Fire & Emergency Response System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Fire & Emergency Response System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Fire & Emergency Response System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Fire & Emergency Response Communication

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Fire & Emergency Response System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Fire & Emergency Response System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Fire & Emergency Response System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.2 Communications System, as QA-1.

Q-List Questions

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Office & Data System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Office & Data System maintains site-wide and off-site voice, data and video communications. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Office & Data System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Office & Data System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Office & Data System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Office & Data System would not affect the waste isolation functions performed by the natural or engineered barriers.

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Office & Data System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Office & Data System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Office & Data System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Office & Data System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Office & Data System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Office & Data System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Office & Data System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Office & Data System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Office & Data System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List.

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Office & Data System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.2 Communications System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Phone System

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Phone System maintains site-wide and off-site voice, data and video communications. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Phone System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Phone System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Phone System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Phone System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Phone System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Phone System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Phone System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Phone System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Phone System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Phone System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Phone System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Phone System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Phone System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Phone System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.2 Communications System, as QA-1.

Q-List Questions

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Public Address & Central Alarm System

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Public Address & Central Alarm System maintains site-wide voice and alarm communications. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Public Address & Central Alarm System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Public Address & Central Alarm System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Public Address & Central Alarm System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Public Address & Central Alarm System would not affect the waste isolation functions performed by the natural or engineered barriers.

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Public Address & Central Alarm System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Public Address & Central Alarm System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Public Address & Central Alarm System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Public Address & Central Alarm System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Public Address & Central Alarm System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Public Address & Central Alarm System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Public Address & Central Alarm System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Public Address & Central Alarm System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Public Address & Central Alarm System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Public Address & Central Alarm System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.2 Communications System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Security Communications System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Security Communications System maintains site-wide and off-site voice, data and video communications. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Security Communications System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Security Communication System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Security Communication System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Security Communication System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Security Communications System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Security Communication System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Security Communication System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Security Communication System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Security Communication System is associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Security Communication System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: General Site Communications Systems

Level 4: N/A

Level 3: Security Communications System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Security Communication System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Security Communication System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Security Communication System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.2 Communications System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: Microwave Systems

Level 4: N/A

Level 3: Earth Station System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Earth Station System maintains site-wide and off-site voice, data and video communications. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Earth Station System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Earth Station System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Earth Station System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Earth Station System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: Microwave Systems

Level 4: N/A

Level 3: Earth Station System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Earth Station System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Earth Station System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Earth Station System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Earth Station System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Earth Station System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: Microwave Systems

Level 4: N/A

Level 3: Earth Station System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Earth Station System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Earth Station System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Earth Station System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.2 Communications System, as QA-1.

Q-List Questions

SDD: SU42 - Site Communications System

SSC: Microwave Systems

Level 4: N/A

Level 3: Portable/Mobile System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The Portable/Mobile Communication System maintains site-wide and off-site voice, data and video communications. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The Portable/Mobile System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

Direct failure of the Portable/Mobile System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The Portable/Mobile System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

Direct failure of the Portable/Mobile System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: Microwave Systems

Level 4: N/A

Level 3: Portable/Mobile System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Portable/Mobile System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Portable/Mobile System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Portable/Mobile System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Portable/Mobile System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Portable/Mobile System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU42 - Site Communications System

SSC: Microwave Systems

Level 4: N/A

Level 3: Portable/Mobile System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Portable/Mobile System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Portable/Mobile System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Portable/Mobile System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.2 Communications System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Flood Control System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The flood control system provides for general site flood prevention and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste. Surface facilities containing QA-1 systems and portals to the subsurface areas will be located above the Probable Maximum Flood Level.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The flood control system provides for general site flood prevention and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The flood control system provides for general site flood prevention and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits. Even though a flood is a credible DBE it is not currently postulated to cause a release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The flood control system provides for general site flood prevention and this system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The flood control system provides for general site flood prevention. Failure of this system will not impact the natural or engineered barriers. However, failure of this SSCs may introduce water into the subsurface which could affect the characteristics of the natural barrier.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Flood Control System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The flood control system provides for general site flood prevention and this system is not involved in site-generated radioactive water collection, containment, and/or monitoring.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The flood control system provides for general site flood prevention and this system does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The flood control system provides for general site flood prevention and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The flood control system provides for general site flood prevention and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The flood control system provides for general site flood prevention and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Flood Control System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The flood control system provides for general site flood prevention and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The flood control system provides for general site flood prevention and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The flood control system, although not specifically addressed, is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.7 Storm Drainage System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Chilled Water System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The chilled water system provides for general site chilled water needs and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The chilled water system provides for general site chilled water needs and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

The chilled water system provides for general site chilled water needs and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The chilled water system provides for general site chilled water needs and this system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The chilled water system provides for general site chilled water needs. Failure of this system will not impact the natural or engineered barriers. However, failure of this SSCs may introduce water into the subsurface but it is not expected to affect the characteristics of the natural barrier.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Chilled Water System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The chilled water system provides for general site chilled water needs and this system is not involved in site-generated radioactive water collection, containment, and/or monitoring.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The chilled water system provides for general site chilled water needs and this system does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The chilled water system provides for general site chilled water needs and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function due to flooding.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The chilled water system provides for general site chilled water needs and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The chilled water system provides for general site chilled water needs and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Chilled Water System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The chilled water system provides for general site chilled water needs and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The chilled water system provides for general site chilled water needs and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The surface cooled (chilled) water system was previously analyzed and determined to be non-Q by exemption, as WBS 1.2.4.3. However, the underground water distribution of chilled water is contained on the Q-List by direct inclusion for the Underground Service and Utility Systems, SSA 3.5.6.1 Chilled Water, as QA-1.

Q-List Questions

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Cooling Water System

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The cooling water system provides for general site water needs and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The cooling water system provides for general site water needs and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The cooling water system provides for general site water needs and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The cooling water system provides for general site water needs and this system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The cooling water system provides for general site water needs. Failure of this system will not impact the natural or engineered barriers. However, failure of this SSCs may introduce water into the subsurface but it is not expected to affect the characteristics of the natural barrier.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Cooling Water System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The cooling water system provides for general site water needs and this system is not involved in site-generated radioactive water collection, containment, and/or monitoring.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The cooling water system provides for general site water needs and this system does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The cooling water system provides for general site water needs and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function due to flooding.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The cooling water system provides for general site water needs and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The cooling water system provides for general site water needs and this system is not involved in the accountability of special nuclear material.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Cooling Water System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The cooling water system provides for general site water needs and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The cooling water system provides for general site water needs and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The surface cooled water system was previously analyzed and determined to be non-Q by exemption, as WBS 1.2.4.3. However, the underground water distribution of chilled water is contained on the Q-List by direct inclusion for the Underground Service and Utility Systems, SSA 3.5.6.1 Chilled Water, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Fire Water Distribution System

Level 5: N/A

| | | | | | | | |
|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The fire water distribution system provides for general site fire fighting water needs and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The fire water distribution system provides for general site fire fighting water needs and would mitigate a credible Design Basis Event (i.e., fire) which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

The fire water distribution system provides for general site fire fighting water needs and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The fire water distribution system provides for general site fire fighting water needs and this system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The fire water distribution system provides for general site fire fighting water needs. Failure of this system will not impact the natural or engineered barriers. However, failure of this SSCs may introduce water into the subsurface but it is not expected to affect the characteristics of the natural barrier.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Fire Water Distribution System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The fire water distribution system provides for general site fire fighting water needs and this system is not involved in site-generated radioactive water collection, containment, and/or monitoring.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The fire water distribution system provides for general site fire fighting water needs and this system is involved with the protection of QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The fire water distribution system provides for general site fire fighting water needs and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The fire water distribution system provides for general site fire fighting water needs and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The fire water distribution system provides for general site fire fighting water needs and this system is not involved in the accountability of special nuclear material.

Q-List Questions

B00000000-01717-0200-00134 Rev 00
Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Fire Water Distribution System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The fire water distribution system provides for general site fire fighting water needs and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The fire water distribution system provides for general site fire fighting water needs and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The fire water distribution system, although not specifically addressed, is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.11 Fire Protection System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Potable Water System

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The potable water system provides for general site water needs and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The potable water system provides for general site water needs and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The potable water system provides for general site water needs and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The potable water system provides for general site water needs and this system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The potable water system provides for general site water needs. Failure of this system will not impact the natural or engineered barriers. However, failure of this SSCs may introduce water into the subsurface but it is not expected to affect the characteristics of the natural barrier.

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Potable Water System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? **Rationale:**

The potable water system provides for general site water needs and this system is not involved in site-generated radioactive water collection, containment, and/or monitoring.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? **Rationale:**

The potable water system provides for general site water needs and this system does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? **Rationale:**

The potable water system provides for general site water needs and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? **Rationale:**

The potable water system provides for general site water needs and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? **Rationale:**

The potable water system provides for general site water needs and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Potable Water System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The potable water system provides for general site water needs and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The potable water system provides for general site water needs and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The potable water system is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.5 Potable-Water Distribution System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Well Water System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The well water system provides for general site water needs and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The well water system provides for general site water needs and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

The well water system provides for general site water needs and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The well water system provides for general site water needs and this system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The well water system provides for general site water needs. Failure of this system will not impact the natural or engineered barriers. However, failure of this SSCs may introduce water into the subsurface but it is not expected to affect the characteristics of the natural barrier.

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Attachment IV

SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Well Water System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? **Rationale:**

The well water system provides for general site water needs and this system is not involved in site-generated radioactive water collection, containment, and/or monitoring.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? **Rationale:**

The well water system provides for general site water needs and this system does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? **Rationale:**

The well water system provides for general site water needs and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? **Rationale:**

The well water system provides for general site water needs and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? **Rationale:**

The well water system provides for general site water needs and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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SDD: SU43 - Site Water System

SSC: Site Water Systems

Level 4: N/A

Level 3: Well Water System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The well water system provides for general site water needs and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The well water system provides for general site water needs and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The well water system, although not specifically addressed, is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.5 Potable-Water Distribution System, as QA-1.

Q-List Questions

SDD: SU43 - Site Water System

SSC: Utility Building System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and this system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building. Failure of this system will not impact the natural or engineered barriers.

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SDD: SU43 - Site Water System

SSC: Utility Building System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and this system is not involved in site-generated radioactive water collection, containment, and/or monitoring.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and this system does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and failure of this system would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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SDD: SU43 - Site Water System

SSC: Utility Building System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The utility building system provides for water needs for the utility equipment in the utility building and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The utility building system, although not specifically addressed, is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3 Utilities, as QA-1.

Q-List Questions

SDD: SU44 - Site Electrical Power System

SSC: Site Lighting System

Level 4: N/A

Level 3: General Lighting System

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site lighting and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and failure of this system would not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and failure of this SSC will not impact the natural or engineered barriers.

Q-List Questions

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SDD: SU44 - Site Electrical Power System

SSC: Site Lighting System

Level 4: N/A

Level 3: General Lighting System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and failure of this system would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and this system is not involved in the accountability of special nuclear material.

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Site Lighting System

Level 4: N/A

Level 3: General Lighting System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system provides for general site electrical distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - site lighting system - general lighting system is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.3 Lighting, as QA-1.

Q-List Questions

SDD: SU44 - Site Electrical Power System

SSC: Site Lighting Systems

Level 4: N/A

Level 3: Safety/Security System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site lighting and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and failure of this system would not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and failure of this SSC will not impact the natural or engineered barriers.

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SDD: SU44 - Site Electrical Power System

SSC: Site Lighting Systems

Level 4: N/A

Level 3: Safety/Security System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and failure of this system would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and this system may be involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and this system is not involved in the accountability of special nuclear material.

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Site Lighting Systems

Level 4: N/A

Level 3: Safety/Security System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system provides for general site electrical distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - site lighting system - safety/security system, although not specifically addressed, is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.3 Lighting, as QA-1.

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SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Generator Fuel Supply System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and would function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and failure of this SSC will not impact the natural or engineered barriers.

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Generator Fuel Supply System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function beyond the concerns already reviewed in question 1.3. During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Generator Fuel Supply System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply provides for general site electrical backup power distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - standby power generator fuel supply is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.3 Emergency and Backup Power Generator System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Standby Power Distribution System

Level 5: N/A

| | | | | | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and would function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup distribution and failure of this SSC will not impact the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Standby Power Distribution System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function (such as emergency power). During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and this system is not involved in the accountability of special nuclear material.

Q-List Questions

B00000000-01717-0200-00134 Rev 00
Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Standby Power Distribution System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - standby power generator distribution system provides for general site electrical backup power distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - standby power generator distribution system is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.3 Emergency and Backup Power Generator System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Standby Power Generator System

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and would function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and failure of this system will not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and failure of this SSC will not impact the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Standby Power Generator System

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function (such as emergency power). During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Standby Power System

Level 4: N/A

Level 3: Standby Power Generator System

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - standby power generator provides for general site electrical backup power distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - standby power generator is contained on the Q-List by direct inclusion for the Balance of Plant, SSA 3.2.3.3 Emergency and Backup Power Generator System, as QA-1.

Q-List Questions

SDD: SU44 - Site Electrical Power System

SSC: Substation

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The site electrical power system - substation provides for general site electrical distribution and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - substation provides for general site electrical distribution and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - substation provides for general site electrical distribution and failure of this system would not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The site electrical power system - substation provides for general site electrical distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The site electrical power system - substation provides for general site electrical distribution and failure of this SSC will not impact the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Substation

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? **Rationale:**

The site electrical power system - substation provides for general site electrical distribution and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? **Rationale:**

The site electrical power system - substation provides for general site electrical distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? **Rationale:**

The site electrical power system - substation provides for general site electrical distribution and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function. During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? **Rationale:**

The site electrical power system - substation provides for general site electrical distribution and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? **Rationale:**

The site electrical power system - substation provides for general site electrical distribution and this system is not involved in the accountability of special nuclear material.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Substation

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - substation provides for general site electrical distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - substation provides for general site electrical distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.8 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - substation, although not specifically addressed, is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.1 Power Distribution System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Switchgear Building

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and failure of this system would not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and failure of this SSC will not impact the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Switchgear Building

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function. During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and this system is not involved in the accountability of special nuclear material.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Switchgear Building

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - switchgear building provides for general site electrical distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - switchgear building, although not specifically addressed, is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.1 Power Distribution System, as QA-1.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Utility Power Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes?

Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and is not involved with receipt, handling, packaging, storing, emplacement or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and does not prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes?

Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and failure of this system would not result in a credible Design Basis Event which could result in a radioactive release above the federal limits.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes?

Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes?

Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and failure of this SSC will not impact the natural or engineered barriers.

O-List Questions

B00000000-01717-0200-00134 Rev 00
Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Utility Power Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and is not involved in the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and failure of this system could impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function. During a fire DBE, cables or equipment could prevent operation or cause maloperation due to hot shorts, open circuits, or shorts to ground.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and this system is not involved in the detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and this system is not involved in the accountability of special nuclear material.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU44 - Site Electrical Power System

SSC: Utility Power Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and this system does not have its own source term, or provide radiation shielding or reduction in dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The site electrical power system - utility power distribution system provides for general site electrical distribution and this system is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The site electrical power system - utility power distribution system is contained on the Q-List by direct inclusion for the Onsite Utility Systems, SSA 3.1.1.3.1 Power Distribution System, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Air Compression System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Air Compression System is used for pneumatic tooling, actuators, and material handling equipment. The system also provides primary and backup compressed air, provides remote control and monitoring, and conditions the compressed air. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Air Compression System supports QA-1 systems and is required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Air Compression System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Air Compression System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Air Compression System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Air Compression System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Air Compression System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Air Compression System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Air Compression System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Air Compression System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Air Compression System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Air Compression System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposures:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Air Compression System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Air Compression System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.8 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Air Compression System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3 Utilities, as QA-1.

O-List Questions

SDD: SU45 - Site Compressed Air System

SSC: Industrial Air Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

- 1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?
 Yes? **Rationale:**
The Industrial Air Distribution System supplies compressed air for pneumatic tooling, actuators, and material handling equipment. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

- 1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?
 Yes? **Rationale:**
The Industrial Air Distribution System is not required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

- 1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?
 Yes? **Rationale:**
Direct failure of the Industrial Air Distribution System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

- 2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?
 Yes? **Rationale:**
The Industrial Air Distribution System does not perform a waste isolation function by forming part of the natural or engineered barriers.

- 2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?
 Yes? **Rationale:**
Direct failure of the Industrial Air Distribution System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Industrial Air Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? **Rationale:**

The Industrial Air Distribution System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? **Rationale:**

The Industrial Air Distribution System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? **Rationale:**

Failure of the Industrial Air Distribution System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? **Rationale:**

The Industrial Air Distribution System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? **Rationale:**

The Industrial Air Distribution System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Industrial Air Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Industrial Air Distribution System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Industrial Air Distribution System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Industrial Air Distribution System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3 Utilities, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Instrument Air Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Instrument Air Distribution System provides air to the surface and subsurface air distribution system. This system is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Instrument Air Distribution System supports QA-1 systems and is required to function to prevent, mitigate, or monitor a credible Design Basis Event which could result in a radioactive release above the federal limits.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Direct failure of the Instrument Air Distribution System would not result in a credible DBE that could lead to a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Instrument Air Distribution System does not perform a waste isolation function by forming part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of the Instrument Air Distribution System would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Instrument Air Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Instrument Air Distribution System is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Instrument Air Distribution System does not perform fire protection functions.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Failure of the Instrument Air Distribution System would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Instrument Air Distribution System is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Instrument Air Distribution System is not required for special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU45 - Site Compressed Air System

SSC: Instrument Air Distribution System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Instrument Air Distribution System does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Instrument Air Distribution System is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Instrument Air Distribution System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3 Utilities, as QA-1.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Hazardous Waste Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC is not associated with any of the currently postulated DBEs.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. There are no scenarios in which direct failure of this SSC would result in a credible DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. Direct failure of this SSC would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Hazardous Waste Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC does not perform a fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. Failure of this SSC would be mitigated and would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC is not associated with special nuclear material accountability.

O-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Hazardous Waste Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Hazardous Waste Collection System collects and packages solid and liquid hazardous waste at the points of generation throughout the surface and subsurface. This SSC is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Hazardous Waste Collection System is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1.8, as QA-1.

Q-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Sanitary Solid Waste Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC is not associated with any of the currently postulated DBEs.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. There are no scenarios in which direct failure of this SSC would result in a credible DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. Direct failure of this SSC would not affect the waste isolation functions performed by the natural or engineered barriers.

O-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Sanitary Solid Waste Collection System Level 4: N/A

Level 3: N/A Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC does not perform a fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. Failure of this SSC would be mitigated and would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC is not associated with special nuclear material accountability.

O-List Questions

B00000000-01717-0200-00134 Rev 00

Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Sanitary Solid Waste Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

Sanitary, nonhazardous waste is collected, by the Sanitary Solid Waste Collection System, at containers throughout the site, which is periodically collected and transferred to off-site disposal. This SSC is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Sanitary Solid Waste Collection System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.13, as QA-1.

Q-List Questions

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Sanitary Waste Treatment System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC is not associated with any of the currently postulated DBEs.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. There are no scenarios in which direct failure of this SSC would result in a credible DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. Direct failure of this SSC would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Sanitary Waste Treatment System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC does not perform a fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. Failure of this SSC would be mitigated and would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC is not associated with special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Sanitary Waste Treatment System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC does not have its own radioactive source term and does not provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The Sanitary Waste Treatment System is the system in which sanitary liquid waste is routed via the sewer lines to the sanitary waste treatment facility on the surface. This SSC is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Sanitary Waste Treatment System is contained on the Q-List by direct inclusion for the Surface Service and Utility Systems, SSA 3.1.1.3.10, as QA-1.

Q-List Questions

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Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Subsurface Waste Water Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC is not associated with the receipt, handling, storage, packaging, emplacement, or retrieval of high-level waste.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC is not associated with any of the currently postulated DBEs.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. There are no scenarios in which direct failure of this SSC would result in a credible DBE.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

This SSC is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

Direct failure of this SSC would not affect the waste isolation functions performed by the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Subsurface Waste Water Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC is not designed for the collection, containment, and/or monitoring of site-generated radioactive waste but may in fact collect some.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC does not perform a fire protection function.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. Failure of this SSC could impair the capability of QA-2 SSCs from performing their waste isolation function.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC is not associated with the detection or alarming for unauthorized intrusion or the presence of explosive materials.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC is not associated with special nuclear material accountability.

Q-List Questions

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Attachment IV

SDD: SU47 - Site Generated Hazardous & Non-Hazardous Waste Disposal Systems

SSC: Subsurface Waste Water Collection System

Level 4: N/A

Level 3: N/A

Level 5: N/A

QA-7 - Important to Occupational Radiological Exposure:

7.1 Does the SSC provide personnel radiation shielding, reduce dose rates in radioactive areas, or require personnel access into radiation areas by its own radioactive source term?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC may have its own radioactive source term and thus might provide for personnel radiation shielding or the reduction of dose rates.

7.2 Is the SSC a permanently installed radiation monitor which monitors areas for personnel radiation protection?

Yes? Rationale:

The subsurface waste water is pumped, by the Subsurface Waste Water Collection System, to the waste water collection system on the surface. This SSC is not a radiation monitor.

Previous QA Classification:

This question is for historical and traceability purposes only. A "yes" answer to this question does not provide inclusion to the Q-List

8.0 Are there other factors, such as previous analyses, a body of consensus, or by direct inclusion, that led to the previous conclusion that this SSC is important to radiological safety (QA-1) or waste isolation (QA-2)?

Yes? Rationale:

The Subsurface Waste Water Collection System is contained on the Q-List by direct inclusion for the Surface Facilities, SSA 3.2.1.1.8, as QA-1.

Q-List Questions

SDD: SU48 - Security & Safeguards System

SSC: Safeguards Material Control and Accountability

Level 4: N/A

Level 3: N/A

Level 5: N/A

| | | | | | | | |
|-------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
| QA-1 | QA-2 | QA-3 | QA-4 | QA-5 | QA-6 | QA-7 | Non-Q |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

QA-1 - Important to Radiological Safety:

1.1 Is the SSC required to provide reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits?

Yes? Rationale:

The security and safeguards system performs the surveillance and safeguards functions required to protect the repository from unauthorized intrusion, sabotage, theft, and the diversion of nuclear material. The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. If the waste packages were damaged during a theft, sabotage or diversion of nuclear material, the consequences could exceed the federal limits due to criticality or loss of containment. Therefore, this system provides a reasonable assurance that high-level waste can be received, handled, packaged, stored, emplaced, and retrieved without exceeding the federal limits.

1.2 Is the SSC required to function to prevent, mitigate, or monitor a credible Design Basis Event which would otherwise result in a radioactive release above the federal limits?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. If the waste packages were damaged during a theft, sabotage or diversion of nuclear material, the consequences could exceed the federal limits. Therefore, this system is required to function to prevent, mitigate, and monitor a credible criticality DBE which would otherwise result in a radioactive release above the federal limit.

1.3 Will the direct failure of the SSC result in a credible Design Basis Event which would lead to a radioactive release above the federal limits?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. Failure of this system will not result in a credible DBE which would otherwise result in a radioactive release above the federal limit.

QA-2 - Important to Waste Isolation:

2.1 Does the SSC perform a waste isolation function by forming part of the natural or engineered barriers?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. This system is not part of the natural or engineered barriers.

2.2 Can direct failure of the SSC significantly affect the hydrological, geochemical, or geomechanical characteristics of the natural or engineered barriers which may prevent them from performing their waste isolation function?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. Failure of this system will not impact the natural or engineered barriers.

Q-List Questions

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Attachment IV

SDD: SU48 - Security & Safeguards System

SSC: Safeguards Material Control and Accountability **Level 4: N/A**

Level 3: N/A **Level 5: N/A**

QA-3 - Important to Radioactive Waste Control:

3.1 Is the function of the SSC designed for collection, containment, and/or monitoring of site-generated radioactive waste?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. This system is not involved with the collection, containment, and/or monitoring of site-generated radioactive waste.

QA-4 - Important to Fire Protection:

4.1 Does the SSC protect QA-1 or QA-2 SSCs from the effects of fire?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. This system does not protect QA-1 or QA-2 SSCs from the effects of fire.

QA-5 - Important to Potential Interaction:

5.1 As a result of a Design Basis Event, could failure of the SSC impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation function?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. Failure of this system would not impair the capability of QA-1 or QA-2 SSCs from performing their radiological safety or waste isolation functions.

QA-6 - Important to Physical Protection of Facility and Materials:

6.1 Does the SSC's function provide detection or alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. Part of the purpose of this system is to provide detection and alarm of unauthorized intrusion or unauthorized explosive materials in the restricted area.

6.2 Is the SSCs function required for special nuclear material accountability?

Yes? Rationale:

The safeguards material control and accountability is the subsystem responsible for protecting and maintaining the inventories of nuclear material. Part of the purpose of this system is to provide special nuclear material accountability.