**Byron Station**
**ODCM Revision 15 Change Determination**
**CY-AA-170-3100**

Station: Byron

ODCM Revision No: 15 Determination Identifier: A – Administrative Changes

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| 1. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1301?<br><br>Explain:<br><br>This ODCM change will maintain the radioactive effluent control required by 10CFR20.1301, Dose Limits for Individual Members of the Public, which is to ensure total effective dose equivalent to individual members of the public from licensed operation does not exceed 0.1rem.<br><br>Determination A changes are administrative in nature. The changes include adding clarification to REMP air sampler location table references, adding "continued" to table titles, darkening of flow diagram lines, and correction of typos.<br><br>None of these administrative changes affect the radioactive effluent control required by 10CFR20.1301. | _x_Yes | ___No |
| 2. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1302?<br><br>Explain:<br><br>This ODCM change will maintain the level of control required in 10CFR20. The requirement of 10CFR20.1302 is to provide "surveys of radiation levels in unrestricted and controlled areas and radioactive materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10CFR20.1301."<br><br>Determination A changes are administrative in nature. The changes include adding clarification to REMP air sampler location table references, adding "continued" to table titles, darkening of flow diagram lines, and correction of typos.<br><br>None of these administrative changes affect the radioactive effluent control required by 10CFR20.1302. | _x_Yes | ___No |

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| 3. Does the ODCM change maintain the level of radioactive effluent control required by 40CFR190 and 10CFR72.104?<br><br>Explain:<br><br>This ODCM change will not reduce the control required by 40CFR190. The controls required by 40CFR190 and 10CFR72.104 include limiting the annual dose equivalent of any member of the public to less than 25 mrem whole body, 75 mrem thyroid, and 25 mrem to any organ as the result of activities from the uranium fuel cycle, including direct radiation from ISFSI.<br><br>Determination A changes are administrative in nature. The changes include adding clarification to REMP air sampler location table references, adding "continued" to table titles, darkening of flow diagram lines, and correction of typos.<br><br>None of these changes affect the ability to maintain radioactive effluent and direct radiation controls required by 40CFR190 and 10CFR72.104. | _x_Yes | ___No |
| 4. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50.36a?<br><br>Explain:<br><br>This ODCM change does not affect the level of control previously established in the ODCM required by 10CFR50.36a. The basic requirement of 10CFR50.36a is to keep releases and the resultant dose to the public as low as reasonably achievable (ALARA). This ODCM change will not reduce the station's ability to keep releases of radioactive materials to unrestricted areas as low as reasonably achievable, as required by 10CFR50.36a.<br><br>Determination A changes are administrative in nature. The changes include adding clarification to REMP air sampler location table references, adding "continued" to table titles, darkening of flow diagram lines, and correction of typos.<br><br>None of these administrative changes affect the radioactive effluent control required by 10CFR50.36a. | _x_Yes | ___No |
| 5. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50 Appendix I?<br><br>Explain:<br><br>10CFR50 Appendix I states that liquid effluents from each reactor each year shall not expose any individual to more than 3 mrem to the total body or 10 mrem to any critical organ. Gaseous releases of particulates and iodines with half-lives >8 days shall not expose any individual organ to more than 15 mrem/year. Noble gases shall not expose any individual total body to more than 500 mrem/year, skin to more than 3000 mrem/year, gamma dose to 10 mrad/year, and beta dose to 20 mrad/year.<br><br>Determination A changes are administrative in nature. The changes include adding clarification to REMP air sampler location table references, adding "continued" to table titles, darkening of flow diagram lines, and correction of typos.<br><br>None of these administrative changes affect the radioactive effluent control required by 10CFR50 Appendix I. | _x_Yes | ___No |
| 6. Does the ODCM change maintain the accuracy or reliability of effluent, dose, or setpoint calculations?<br><br>Explain:<br><br>The accuracy and reliability of effluent, dose, and setpoint calculations will not be affected by | _x_Yes | ___No |

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| | this ODCM change. Effluent and setpoint calculations will continue to be performed using the established ODCM methodology.<br><br>Determination A changes are administrative in nature. The changes include adding clarification to REMP air sampler location table references, adding "continued" to table titles, darkening of flow diagram lines, and correction of typos.<br><br>None of these administrative changes affect the accuracy or reliability of effluent, dose, or setpoint calculations. | | |
| 7. | Does the ODCM change maintain the accuracy of radioactive effluent control required by the FSAR?<br><br>Explain:<br><br>This ODCM change will maintain the accuracy of the radioactive effluent control required by the Byron/Braidwood UFSAR. The B/B UFSAR Table 11.5-6, Radiological Analysis Summary of Gaseous Effluent Samples, includes typical sampling frequency, type of analysis, sensitivity, and purpose for effluent radiation monitors. No UFSAR described effluent samples or monitors are affected by this change.<br><br>Determination A changes are administrative in nature. The changes include adding clarification to REMP air sampler location table references, adding "continued" to table titles, darkening of flow diagram lines, and correction of typos.<br><br>None of these administrative changes affect the accuracy of radioactive effluent control required by the FSAR. | _x_ Yes | ___ No |

**Byron Station**
**ODCM Revision 15 Change Determination**
**CY-AA-170-3100**

Station: Byron

ODCM Revision No: 15 Determination Identifier: B – SGBD Overboard Modification, EC #624333

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| 1. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1301?<br><br>Explain:<br><br>This ODCM change will maintain the radioactive effluent control required by 10CFR20.1301, Dose Limits for Individual Members of the Public, which is to ensure total effective dose equivalent to individual members of the public from licensed operation does not exceed 0.1rem.<br><br>This EC installed piping to allow SGBD water at a total flow rate of up to 100 gpm per unit to bypass the SGBD demineralizers and be routed directly to the CP trench to extend the life of the SGBD demineralizers, allow overall reduction in SGBD flow, and recover thermal output. The EC increases the amount of water being discharged, which normally contains tritium. However, the amount of tritium present in secondary process water when discharged is negligible compared to the amount of tritium being discharged via liquid release tanks. Therefore, this modification has no impact to offsite dose calculations.<br><br>This ODCM change does not affect any radioactive effluent control required by 10CFR20.1301. The change is only being made to the ODCM drawing to reflect the new flow path, which continues to be through a monitored effluent pathway. | _x_Yes | ___No |
| 2. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1302?<br><br>Explain:<br><br>This ODCM change will maintain the level of control required in 10CFR20. The requirement of 10CFR20.1302 is to provide "surveys of radiation levels in unrestricted and controlled areas and radioactive materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10CFR20.1301."<br><br>This EC installed piping to allow SGBD water at a total flow rate of up to 100 gpm per unit to bypass the SGBD demineralizers and be routed directly to the CP trench to extend the life of the SGBD demineralizers, allow overall reduction in SGBD flow, and recover thermal output. The EC increases the amount of water being discharged, which normally contains tritium. However, the amount of tritium present in secondary process water when discharged is negligible compared to the amount of tritium being discharged via liquid release tanks. Therefore, this modification has no impact to offsite dose calculations.<br><br>The change to ODCM Figure 2-1 does not affect any radioactive effluent controls required by 10CFR20.1302. The change is only being made to the ODCM drawing to reflect the new flow path, which continues to be through a monitored effluent pathway. | _x_Yes | ___No |
| 3. Does the ODCM change maintain the level of radioactive effluent control required by 40CFR190 and 10CFR72.104?<br><br>Explain:<br><br>This ODCM change will not reduce the control required by 40CFR190. The controls required by 40CFR190 and 10CFR72.104 include limiting the annual dose equivalent of any member of the public to less than 25 mrem whole body, 75 mrem thyroid, and 25 mrem to any organ as the result of activities from the uranium fuel cycle, including direct radiation from ISFSI.<br><br>This EC installed piping to allow SGBD water at a total flow rate of up to 100 gpm per unit to bypass the SGBD demineralizers and be routed directly to the CP trench to extend the life of the SGBD demineralizers, allow overall reduction in SGBD flow, and recover thermal output. The EC increases the amount of water being discharged, which normally contains tritium. However, the amount of tritium present in secondary process water when discharged is negligible compared to the amount of tritium being discharged via liquid release tanks. Therefore, this modification has no impact to offsite dose calculations. | _x_Yes | ___No |

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ODCM Revision No: 15 Determination Identifier: B – SGBD Overboard Modification, EC #624333

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| This ODCM revision does not affect radioactive effluent or direct radiation controls and therefore maintains the level of radioactive effluent control required by 40CFR190 and 10CFR 72.104. The change is only being made to the ODCM drawing to reflect the new flow path, which continues to be through a monitored effluent pathway. | | |
| 4. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50.36a?<br><br>Explain:<br><br>The basic requirement of 10CFR50.36a is to keep releases and the resultant dose to the public as low as reasonably achievable (ALARA).<br><br>This EC installed piping to allow SGBD water at a total flow rate of up to 100 gpm per unit to bypass the SGBD demineralizers and be routed directly to the CP trench to extend the life of the SGBD demineralizers, allow overall reduction in SGBD flow, and recover thermal output. The EC increases the amount of water being discharged, which normally contains tritium. However, the amount of tritium present in secondary process water when discharged is negligible compared to the amount of tritium being discharged via liquid release tanks. Therefore, this modification has no impact to offsite dose calculations.<br><br>This ODCM revision does not reduce the station's ability to keep releases of radioactive materials to unrestricted areas as low as reasonably achievable, and therefore does not affect the level of control previously established in the ODCM required by 10CFR50.36a. The change is only being made to the ODCM drawing to reflect the new flow path, which continues to be through a monitored effluent pathway. | _x_Yes | ___No |

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ODCM Revision No: 15 Determination Identifier: B – SGBD Overboard Modification, EC #624333

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| 5. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50 Appendix I?<br><br>Explain:<br><br>10CFR50 Appendix I states that liquid effluents from each reactor each year shall not expose any individual to more than 3 mrem to the total body or 10 mrem to any critical organ. Gaseous releases of particulates and iodines with half-lives >8 days shall not expose any individual organ to more than 15 mrem/year. Noble gases shall not expose any individual total body to more than 500 mrem/year, skin to more than 3000 mrem/year, gamma dose to 10 mrad/year, and beta dose to 20 mrad/year.<br><br>This EC installed piping to allow SGBD water at a total flow rate of up to 100 gpm per unit to bypass the SGBD demineralizers and be routed directly to the CP trench to extend the life of the SGBD demineralizers, allow overall reduction in SGBD flow, and recover thermal output. The EC increases the amount of water being discharged, which normally contains tritium. However, the amount of tritium present in secondary process water when discharged is negligible compared to the amount of tritium being discharged via liquid release tanks. Therefore, this modification has no impact to offsite dose calculations.<br><br>This ODCM revision does not affect the amount of liquid and gaseous effluent releases required to maintain the level of radioactive effluent control required by 10CFR50 Appendix I. The change is only being made to the ODCM drawing to reflect the new flow path, which continues to be through a monitored effluent pathway. | _x_Yes | ___No |
| 6. Does the ODCM change maintain the accuracy or reliability of effluent, dose, or setpoint calculations?<br><br>Explain:<br><br>This EC installed piping to allow SGBD water at a total flow rate of up to 100 gpm per unit to bypass the SGBD demineralizers and be routed directly to the CP trench to extend the life of the SGBD demineralizers, allow overall reduction in SGBD flow, and recover thermal output. The EC increases the amount of water being discharged, which normally contains tritium. However, the amount of tritium present in secondary process water when discharged is negligible compared to the amount of tritium being discharged via liquid release tanks. Therefore, this modification has no impact to offsite dose calculations.<br><br>The accuracy and reliability of effluent, dose, and setpoint calculations will not be affected by this ODCM change. The change is only being made to the ODCM drawing to reflect the new flow path, which continues to be through a monitored effluent pathway. | _x_Yes | ___No |
| 7. Does the ODCM change maintain the accuracy of radioactive effluent control required by the FSAR?<br><br>Explain:<br><br>This ODCM change will maintain the accuracy of the radioactive effluent control required by the Byron/Braidwood UFSAR. The B/B UFSAR Section 11.2 describes liquid radwaste management systems and concentrations and doses expected from liquid releases. The B/B UFSAR Section 11.5 describes process and effluent radiological monitoring and sampling systems.<br><br>This EC installed piping to allow SGBD water at a total flow rate of up to 100 gpm per unit to bypass the SGBD demineralizers and be routed directly to the CP trench to extend the life of the SGBD demineralizers, allow overall reduction in SGBD flow, and recover thermal output. The EC increases the amount of water being discharged, which normally contains tritium. However, the amount of tritium present in secondary process water when discharged is negligible compared to the amount of tritium being discharged via liquid release tanks. Therefore, this modification has no impact to offsite dose calculations.<br><br>The revision to ODCM Figure 2-1 does not affect the ability to maintain the accuracy of radioactive effluent control required by the FSAR. The change is only being made to the | _x_Yes | ___No |

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ODCM Revision No: 15 Determination Identifier: B – SGBD Overboard Modification, EC #624333

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| ODCM drawing to reflect the new flow path, which continues to be through a monitored effluent pathway. | | |

**Byron Station**
**ODCM Revision 15 Change Determination**
**CY-AA-170-3100**

Station: Byron

ODCM Revision No: 15 Determination Identifier: C – Bypass of U1/U2 SJAE offgas filter units, EC #402667/402668)

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| 1. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1301?<br><br>Explain:<br><br>This ODCM change will maintain the radioactive effluent control required by 10CFR20.1301, Dose Limits for Individual Members of the Public, which is to ensure total effective dose equivalent to individual members of the public from licensed operation does not exceed 0.1rem.<br><br>ECs 402667/402668 removed the existing actuators from 1/2OG035, Unit 1/2 Off Gas (OG) System Vent Stack Isolation Valve(s), and installed a block to restrain the valve in the open position. Originally, the system was designed to route flow through the charcoal filter unit OG01S upon sensing radiation in the steam jet air ejector (SJAE) exhaust. However, the filter unit was isolated early on in plant operation due to problems with wetting the charcoal. That left the flow path through 1/2OG035 as the only vent path for the exhaust of the vacuum hogging pumps and SJAEs. As such, 1/2OG035 represented a significant single point vulnerability (SPV) in that it would cause a loss of condenser vacuum potentially leading to a reduction in reactor power if it were to spuriously close. Removal of the actuator and installation of a block ensured that the valve remains in the open position at all times, but the ability to filter radioiodines in the event of a high rad alarm has been eliminated. Engineering calcs associated with these modifications concluded that the permanent bypass of the filter units does not result in a significant increase in radioactive materials or dose to the public. ODCM figures were updated to reflect the new plant configuration in previous ODCM revisions, however, the ODCM Section 1.24 Ventilation Exhaust Treatment System definition was not updated as recommended in EC 402667.<br><br>The definition is being updated to include the words "as required" when describing how ventilation exhaust treatment systems are designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers. Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and the radioactive effluent control required by 10CFR20.1301 is maintained. | _x_Yes | ___No |
| 2. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1302?<br><br>Explain:<br><br>This ODCM change will maintain the level of control required in 10CFR20. The requirement of 10CFR20.1302 is to provide "surveys of radiation levels in unrestricted and controlled areas and radioactive materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10CFR20.1301."<br><br>ECs 402667/402668 removed the existing actuators from 1/2OG035, Unit 1/2 Off Gas (OG) System Vent Stack Isolation Valve(s), and installed a block to restrain the valve in the open position. Originally, the system was designed to route flow through the charcoal filter unit OG01S upon sensing radiation in the steam jet air ejector (SJAE) exhaust. However, the filter unit was isolated early on in plant operation due to problems with wetting the charcoal. That left the flow path through 1/2OG035 as the only vent path for the exhaust of the vacuum hogging pumps and SJAEs. As such, 1/2OG035 represented a significant single point vulnerability (SPV) in that it would cause a loss of condenser vacuum potentially leading to a reduction in reactor power if it were to spuriously close. Removal of the actuator and installation of a block ensured that the valve remains in the open position at all times, but the ability to filter radioiodines in the event of a high rad alarm has been eliminated. Engineering calcs associated with these modifications concluded that the | _x_Yes | ___No |

Station: Byron

ODCM Revision No: 15 Determination Identifier: C – Bypass of U1/U2 SJAE offgas filter units, EC #402667/402668)

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| | permanent bypass of the filter units does not result in a significant increase in radioactive materials or dose to the public. ODCM figures were updated to reflect the new plant configuration in previous ODCM revisions, however, the ODCM Section 1.24 Ventilation Exhaust Treatment System definition was not updated as recommended in EC 402667.<br><br>The definition is being updated to include the words "as required" when describing how ventilation exhaust treatment systems are designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers. Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the ability to provide surveys of radiations levels and maintains the level of control of radioactive materials required by 10CFR20. | | |

Station: Byron

ODCM Revision No: 15 Determination Identifier: C – Bypass of U1/U2 SJAE offgas filter units, EC #402667/402668)

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| 3. Does the ODCM change maintain the level of radioactive effluent control required by 40CFR190 and 10CFR72.104?<br><br>Explain:<br><br>This ODCM change will not reduce the control required by 40CFR190. The controls required by 40CFR190 and 10CFR72.104 include limiting the annual dose equivalent of any member of the public to less than 25 mrem whole body, 75 mrem thyroid, and 25 mrem to any organ as the result of activities from the uranium fuel cycle, including direction radiation from ISFSI.<br><br>ECs 402667/402668 removed the existing actuators from 1/2OG035, Unit 1/2 Off Gas (OG) System Vent Stack Isolation Valve(s), and installed a block to restrain the valve in the open position. Originally, the system was designed to route flow through the charcoal filter unit OG01S upon sensing radiation in the steam jet air ejector (SJAE) exhaust. However, the filter unit was isolated early on in plant operation due to problems with wetting the charcoal. That left the flow path through 1/2OG035 as the only vent path for the exhaust of the vacuum hogging pumps and SJAEs. As such, 1/2OG035 represented a significant single point vulnerability (SPV) in that it would cause a loss of condenser vacuum potentially leading to a reduction in reactor power if it were to spuriously close. Removal of the actuator and installation of a block ensured that the valve remains in the open position at all times, but the ability to filter radioiodines in the event of a high rad alarm has been eliminated. Engineering calcs associated with these modifications concluded that the permanent bypass of the filter units does not result in a significant increase in radioactive materials or dose to the public. ODCM figures were updated to reflect the new plant configuration in previous ODCM revisions, however, the ODCM Section 1.24 Ventilation Exhaust Treatment System definition was not updated as recommended in EC 402667.<br><br>The definition is being updated to include the words "as required" when describing how ventilation exhaust treatment systems are designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers. Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the ability to maintain the radioactive effluent or direct radiation controls required by 40CFR190 and 10CFR 72.104. | x Yes | ___No |
| 4. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50.36a?<br><br>Explain:<br><br>This ODCM change does not affect the level of control previously established in the ODCM required by 10CFR50.36a. The basic requirement of 10CFR50.36a is to keep releases and the resultant dose to the public as low as reasonably achievable (ALARA). This ODCM change will not reduce the station's ability to keep releases of radioactive materials to unrestricted areas as low as reasonably achievable, as required by 10CFR50.36a.<br><br>ECs 402667/402668 removed the existing actuators from 1/2OG035, Unit 1/2 Off Gas (OG) System Vent Stack Isolation Valve(s), and installed a block to restrain the valve in the open position. Originally, the system was designed to route flow through the charcoal filter unit OG01S upon sensing radiation in the steam jet air ejector (SJAE) exhaust. However, the filter unit was isolated early on in plant operation due to problems with wetting the charcoal. That left the flow path through 1/2OG035 as the only vent path for the exhaust of the vacuum hogging pumps and SJAEs. As such, 1/2OG035 represented a significant single point vulnerability (SPV) in that it would cause a loss of condenser vacuum potentially leading to a reduction in reactor power if it were to spuriously close. Removal of the actuator and installation of a block ensured that the valve remains in the open position at all times, but the ability to filter radioiodines in the event of a high rad alarm has been | _x_Yes | ___No |

Station: Byron

ODCM Revision No: 15 Determination Identifier: C – Bypass of U1/U2 SJAE offgas filter units, EC #402667/402668)

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| eliminated. Engineering calcs associated with these modifications concluded that the permanent bypass of the filter units does not result in a significant increase in radioactive materials or dose to the public. ODCM figures were updated to reflect the new plant configuration in previous ODCM revisions, however, the ODCM Section 1.24 Ventilation Exhaust Treatment System definition was not updated as recommended in EC 402667.<br><br>The definition is being updated to include the words "as required" when describing how ventilation exhaust treatment systems are designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers. Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the ability to maintain releases of radioactivity to the unrestricted area ALARA. | | |

Station: Byron

ODCM Revision No: 15 Determination Identifier: C – Bypass of U1/U2 SJAE offgas filter units, EC #402667/402668)

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| 5. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50 Appendix I?<br><br>Explain:<br><br>10CFR50 Appendix I states that liquid effluents from each reactor each year shall not expose any individual to more than 3 mrem to the total body or 10 mrem to any critical organ. Gaseous releases of particulates and iodines with half-lives >8 days shall not expose any individual organ to more than 15 mrem/year. Noble gases shall not expose any individual total body to more than 500 mrem/year, skin to more than 3000 mrem/year, gamma dose to 10 mrad/year, and beta dose to 20 mrad/year.<br><br>ECs 402667/402668 removed the existing actuators from 1/2OG035, Unit 1/2 Off Gas (OG) System Vent Stack Isolation Valve(s), and installed a block to restrain the valve in the open position. Originally, the system was designed to route flow through the charcoal filter unit OG01S upon sensing radiation in the steam jet air ejector (SJAE) exhaust. However, the filter unit was isolated early on in plant operation due to problems with wetting the charcoal. That left the flow path through 1/2OG035 as the only vent path for the exhaust of the vacuum hogging pumps and SJAEs. As such, 1/2OG035 represented a significant single point vulnerability (SPV) in that it would cause a loss of condenser vacuum potentially leading to a reduction in reactor power if it were to spuriously close. Removal of the actuator and installation of a block ensured that the valve remains in the open position at all times, but the ability to filter radioiodines in the event of a high rad alarm has been eliminated. Engineering calcs associated with these modifications concluded that the permanent bypass of the filter units does not result in a significant increase in radioactive materials or dose to the public. ODCM figures were updated to reflect the new plant configuration in previous ODCM revisions, however, the ODCM Section 1.24 Ventilation Exhaust Treatment System definition was not updated as recommended in EC 402667.<br><br>The definition is being updated to include the words "as required" when describing how ventilation exhaust treatment systems are designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers. Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged and this change does not affect the ability to meet Appendix I requirements. | _x_Yes | ___No |
| 6. Does the ODCM change maintain the accuracy or reliability of effluent, dose, or setpoint calculations?<br><br>Explain:<br><br>The accuracy and reliability of effluent and dose calculations will not be reduced. They will be unaffected or increased as a result of these changes. Setpoint calculations will not be affected.<br><br>ECs 402667/402668 removed the existing actuators from 1/2OG035, Unit 1/2 Off Gas (OG) System Vent Stack Isolation Valve(s), and installed a block to restrain the valve in the open position. Originally, the system was designed to route flow through the charcoal filter unit OG01S upon sensing radiation in the steam jet air ejector (SJAE) exhaust. However, the filter unit was isolated early on in plant operation due to problems with wetting the charcoal. That left the flow path through 1/2OG035 as the only vent path for the exhaust of the vacuum hogging pumps and SJAEs. As such, 1/2OG035 represented a significant single point vulnerability (SPV) in that it would cause a loss of condenser vacuum potentially leading to a reduction in reactor power if it were to spuriously close. Removal of the actuator and installation of a block ensured that the valve remains in the open position at all times, but the ability to filter radioiodines in the event of a high rad alarm has been | _x_Yes | ___No |

Station: Byron

ODCM Revision No: 15 Determination Identifier: C – Bypass of U1/U2 SJAE offgas filter units, EC #402667/402668)

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| | eliminated. Engineering calcs associated with these modifications concluded that the permanent bypass of the filter units does not result in a significant increase in radioactive materials or dose to the public. ODCM figures were updated to reflect the new plant configuration in previous ODCM revisions, however, the ODCM Section 1.24 Ventilation Exhaust Treatment System definition was not updated as recommended in EC 402667.<br><br>The definition is being updated to include the words "as required" when describing how ventilation exhaust treatment systems are designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers. Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not reduce the accuracy or reliability of effluent, dose, or setpoint calculations. | | |
| 7. | Does the ODCM change maintain the accuracy of radioactive effluent control required by the FSAR?<br><br>Explain:<br><br>ECs 402667/402668 removed the existing actuators from 1/2OG035, Unit 1/2 Off Gas (OG) System Vent Stack Isolation Valve(s), and installed a block to restrain the valve in the open position. Originally, the system was designed to route flow through the charcoal filter unit OG01S upon sensing radiation in the steam jet air ejector (SJAE) exhaust. However, the filter unit was isolated early on in plant operation due to problems with wetting the charcoal. That left the flow path through 1/2OG035 as the only vent path for the exhaust of the vacuum hogging pumps and SJAEs. As such, 1/2OG035 represented a significant single point vulnerability (SPV) in that it would cause a loss of condenser vacuum potentially leading to a reduction in reactor power if it were to spuriously close. Removal of the actuator and installation of a block ensured that the valve remains in the open position at all times, but the ability to filter radioiodines in the event of a high rad alarm has been eliminated. Engineering calcs associated with these modifications concluded that the permanent bypass of the filter units does not result in a significant increase in radioactive materials or dose to the public. ODCM figures were updated to reflect the new plant configuration in previous ODCM revisions, however, the ODCM Section 1.24 Ventilation Exhaust Treatment System definition was not updated as recommended in EC 402667.<br><br>The definition is being updated to include the words "as required" when describing how ventilation exhaust treatment systems are designed and installed to reduce gaseous radioiodine or radioactive material in particulate form in effluents by passing ventilation or vent exhaust gases through charcoal adsorbers. ODCM Figure 2-1 is being updated to reflect the removal of the filtration capability of the offgas filter unit. Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the accuracy of radioactive effluent control required by the FSAR. | _x_Yes | ___No |

**Byron Station**
**ODCM Revision 15 Change Determination**
**CY-AA-170-3100**

Station: Byron

ODCM Revision No: 15 Determination Identifier: D – FSAR Footnote Update

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| 1. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1301?<br><br>Explain:<br><br>This ODCM change will maintain the radioactive effluent control required by 10CFR20.1301, Dose Limits for Individual Members of the Public, which is to ensure total effective dose equivalent to individual members of the public from licensed operation does not exceed 0.1rem.<br><br>Per the ODCM, major changes to Liquid and Gaseous Radwaste Treatment Systems are required to be reported to the NRC in the Annual Radioactive Effluent Release Report. The ODCM contains a footnote that states "Licensees may choose to submit the information called for in this standard as part of the annual FSAR update." Station FSAR updates are now being performed biannually, so the footnote is being revised to reflect the biannual FSAR updates.<br><br>Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and the radioactive effluent control required by 10CFR20.1301 is maintained. | _x_Yes | ___No |
| 2. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR20.1302?<br><br>Explain:<br><br>This ODCM change will maintain the level of control required in 10CFR20. The requirement of 10CFR20.1302 is to provide "surveys of radiation levels in unrestricted and controlled areas and radioactive materials in effluents released to unrestricted and controlled areas to demonstrate compliance with the dose limits for individual members of the public in 10CFR20.1301."<br><br>Per the ODCM, major changes to Liquid and Gaseous Radwaste Treatment Systems are required to be reported to the NRC in the Annual Radioactive Effluent Release Report. The ODCM contains a footnote that states "Licensees may choose to submit the information called for in this standard as part of the annual FSAR update." Station FSAR updates are now being performed biannually, so the footnote is being revised to reflect the biannual FSAR updates.<br><br>Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the ability to provide surveys of radiations levels and maintains the level of control of radioactive materials required by 10CFR20. | _x_Yes | ___No |
| 3. Does the ODCM change maintain the level of radioactive effluent control required by 40CFR190 and 10CFR72.104?<br><br>Explain:<br><br>This ODCM change will not reduce the control required by 40CFR190. The controls required by 40CFR190 and 10CFR72.104 include limiting the annual dose equivalent of any member of the public to less than 25 mrem whole body, 75 mrem thyroid, and 25 mrem to any organ as the result of activities from the uranium fuel cycle, including direction radiation from ISFSI.<br><br>Per the ODCM, major changes to Liquid and Gaseous Radwaste Treatment Systems are required to be reported to the NRC in the Annual Radioactive Effluent Release Report. The ODCM contains a footnote that states "Licensees may choose to submit the information called for in this standard as part of the | _x_Yes | ___No |

Station: Byron

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| annual FSAR update." Station FSAR updates are now being performed biannually, so the footnote is being revised to reflect the biannual FSAR updates.<br><br>Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the ability to maintain the radioactive effluent or direct radiation controls required by 40CFR190 and 10CFR 72.104. | | |

Station: Byron

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| 4. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50.36a?<br><br>Explain:<br><br>This ODCM change does not affect the level of control previously established in the ODCM required by 10CFR50.36a. The basic requirement of 10CFR50.36a is to keep releases and the resultant dose to the public as low as reasonably achievable (ALARA). This ODCM change will not reduce the station's ability to keep releases of radioactive materials to unrestricted areas as low as reasonably achievable, as required by 10CFR50.36a.<br><br>Per the ODCM, major changes to Liquid and Gaseous Radwaste Treatment Systems are required to be reported to the NRC in the Annual Radioactive Effluent Release Report. The ODCM contains a footnote that states "Licensees may choose to submit the information called for in this standard as part of the annual FSAR update." Station FSAR updates are now being performed biannually, so the footnote is being revised to reflect the biannual FSAR updates.<br><br>Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the ability to maintain releases of radioactivity to the unrestricted area ALARA. | _x_ Yes | ___ No |
| 5. Does the ODCM change maintain the level of radioactive effluent control required by 10CFR50 Appendix I?<br><br>Explain:<br><br>10CFR50 Appendix I states that liquid effluents from each reactor each year shall not expose any individual to more than 3 mrem to the total body or 10 mrem to any critical organ. Gaseous releases of particulates and iodines with half-lives >8 days shall not expose any individual organ to more than 15 mrem/year. Noble gases shall not expose any individual total body to more than 500 mrem/year, skin to more than 3000 mrem/year, gamma dose to 10 mrad/year, and beta dose to 20 mrad/year.<br><br>Per the ODCM, major changes to Liquid and Gaseous Radwaste Treatment Systems are required to be reported to the NRC in the Annual Radioactive Effluent Release Report. The ODCM contains a footnote that states "Licensees may choose to submit the information called for in this standard as part of the annual FSAR update." Station FSAR updates are now being performed biannually, so the footnote is being revised to reflect the biannual FSAR updates.<br><br>Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged and this change does not affect the ability to meet Appendix I requirements. | _x_ Yes | ___ No |
| 6. Does the ODCM change maintain the accuracy or reliability of effluent, dose, or setpoint calculations?<br><br>Explain:<br><br>The accuracy and reliability of effluent and dose calculations will not be reduced. They will be unaffected or increased as a result of these changes. Setpoint calculations will not be affected.<br><br>Per the ODCM, major changes to Liquid and Gaseous Radwaste Treatment Systems are required to be reported to the NRC in the Annual Radioactive Effluent Release Report. The ODCM contains a footnote that states "Licensees | _x_ Yes | ___ No |

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| may choose to submit the information called for in this standard as part of the annual FSAR update." Station FSAR updates are now being performed biannually, so the footnote is being revised to reflect the biannual FSAR updates.<br><br>Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not reduce the accuracy or reliability of effluent, dose, or setpoint calculations. | | |
| 7. Does the ODCM change maintain the accuracy of radioactive effluent control required by the FSAR?<br><br>Explain:<br><br>Per the ODCM, major changes to Liquid and Gaseous Radwaste Treatment Systems are required to be reported to the NRC in the Annual Radioactive Effluent Release Report. The ODCM contains a footnote that states "Licensees may choose to submit the information called for in this standard as part of the annual FSAR update." Station FSAR updates are now being performed biannually, so the footnote is being revised to reflect the biannual FSAR updates.<br><br>Since no changes are being made to the way dose calculations are being performed, the resultant doses are unchanged, and this change does not affect the accuracy of radioactive effluent control required by the FSAR. | _x_Yes | ___No |

Prepared by: _____ Date: 2-8-19

Reviewed by: _____ Date: 2-8-19

**Byron Station**
**ODCM Revision 15 Change Summary Matrix**

Administrative Changes - Determination A

Technical Changes (SGBD Overboard Modification, EC #624333) – Determination B

Technical Changes (Bypass of U1/U2 SJAE offgas filter units, EC #402667/402668) – Determination C

Technical Changes (FSAR Footnote Update) – Determination D

| Item No. | (old) Rev. page No. | (new) Rev. page No. | Determination Identifier | Description of Change |
|---|---|---|---|---|
| 1. | 9 of 188 Section 1.24 | 9 of 188 Section 1.24 | C | • Added "as required" to the Ventilation Exhaust Treatment System definition when describing that exhaust gases are passed through charcoal adsorbers. |
| 2. | 25 of 188 Section 5.4 | 25 of 188 Section 5.4 | D | • Changed footnote that describes FSAR update frequency from annual to biannual |
| 3. | 42 of 188 | 42 of 188 | C | • Added Reference 111 – Engineering Change (EC) #402667, Unit 1 OG Vent Stack Isol Valve Single Point Vulnerability Elimination – Install Valve Block on 1OG035<br>• Added Reference 112 – Engineering Change (EC) #402668, Unit 2 OG Vent Stack Isolation Valve Single Point Vulnerability Elimination – Install Valve Block on 2OG035 |
| 4. | 42 of 188 | 42 of 188 | B | • Added Reference 113 – Engineering Change (EC) #624333, SGBD Overboard and Reduction |
| 5. | 47 of 188 Section 2.1.3.1 | 47 of 188 Section 2.1.3.1 | B | • Changed first sentence of Condensate Polisher Sump description from "The condensate polisher sump receives wastewater from the condensate polisher system, which is normally non-radioactive but potentially contaminated" to "The condensate polisher sump receives wastewater and secondary process water from the condensate polisher system, which is normally non-radioactive but potentially contaminated." |
| 6. | 53 of 188 Section 2.4.2.1 | 53 of 188 Section 2.4.2.1 | C | • Added "as required" to the Ventilation Exhaust Treatment System description when describing that exhaust gases are passed through charcoal adsorbers. |
| 7. | 63 of 188 Figure 2-2 | 63 of 188 Figure 2-2 | B | • Revised figure to add SGBD flow path that bypasses SGBD demineralizers and discharges water to CP sump |
| 8. | 63 of 188 Figure 2-2 | 63 of 188 Figure 2-2 | A | • Darkened some lines in flow diagram for consistency |

**Byron Station**
**ODCM Revision 15 Change Summary Matrix**

Administrative Changes - Determination A

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Technical Changes (FSAR Footnote Update) – Determination D

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| 9. | 173 of 188<br>Table 6-1 | 173 of 188<br>Table 6-1 | A | • Changed Section 2.c "Indicators-Other" title to "Indicators" and definition from "At each airborne location listed in Section 1:" to "At all airborne indicator locations listed in Section 1" and removed BY-01, BY-04, BY-06, BY-21 |
| 10. | 174 of 188<br>Table 6-1 | 174 of 188<br>Table 6-1 | A | • Removed "Indicators-Other (cont'd)" and BY-22, BY-23, BY-24<br>• Changed Section 2.d "Control" definition from "At each airborne location listed in Section 1:" to "At the control airborne location listed in Section 1" and removed BY-08 |
| 11. | 185 of 188<br>Table 6-2 | 185 of 188<br>Table 6-2 | A | • Added the following note to table title:<br>"Dosimeters are also located at each air sampling station." |
| 12. | 186 of 188<br>Table 6-2 | 186 of 188<br>Table 6-2 | A | • Added "(continued)" to Table 6-2 title |
| 13. | 187 of 188<br>Table 6-2 | 187 of 188<br>Table 6-2 | A | • Added parentheses to "continued" in Table 6-2 title |
| 14. | 188 of 188<br>Table 6-2 | 188 of 188<br>Table 6-2 | A | • Added parentheses to "continued" in Table 6-2 title |