

| ALERT   | <b>U</b> NUSUAL EVENT   |                     |                                 | G                           |
|---|---|---------------------|---------------------------------|-----------------------------|
| RA1 Release of gaseous or liquid radioactivity resulting in offsite dose<br>greater than 10 mrem TEDE or 50 mrem thyroid CDE123456NM  | RU1 Release of gaseous or liquid radioactivity greater than 2 times the<br>SLC limits for 60 minutes or longer123456NM  |                     |                                 | SG1                         |
| <b>RA1.1</b><br>Reading on <b>any</b> Table R-1 effluent radiation monitor<br>> column "ALERT" for $\ge 15$ min. (Notes 1, 2, 3, 4)   | <b>RU1.1</b><br>Reading on <b>any</b> Table R-1 effluent radiation monitor<br>> column "UE" for $\ge 60$ min. (Notes 1, 2, 3)   |                     |                                 | SG1                         |
| <b>RA1.2</b><br>Dose assessment using actual meteorology indicates doses > 10 mrem TEDE or 50 mrem thyroid CDE at or beyond the   | <b>RU1.2</b><br>Sample analysis for a gaseous or liquid release indicates a concentration or release rate $> 2 \times SLC$ limits for $> 60$ min  |                     | 1                               | esse<br>AND                 |
| SITE BOUNDARY (Note 4)<br><b>RA1.3</b><br>Analysis of a liquid effluent sample indicates a concentration  | (Notes 1, 2)  |                     | Loss of                         | -                           |
| or release rate that would result in doses > 10 mrem TEDE or<br>50 mrem thyroid CDE at or beyond the SITE BOUNDARY for<br>60 min. of exposure (Notes 1, 2)  |   |                     | AC Power                        | SG1                         |
| <b>RA1.4</b><br>Field survey results indicate <b>EITHER</b> of the following at or beyond the SITE BOUNDARY:  |   |                     |                                 | SG1<br>Loss<br>esse         |
| <ul> <li>Closed window dose rates &gt; 10 mR/hr expected to continue for ≥ 60 min.</li> <li>Analyses of field survey samples indicate thyroid CDE</li> </ul>  |   | -                   |                                 | for ≥<br>Al<br>Loss         |
| <ul> <li>&gt; 50 mrem for 60 min. of inhalation.</li> <li>(Notes 1, 2)</li> <li>RA2 Significant lowering of water level above, or damage to, irradiated</li> </ul>  | RU2 Unplanned loss of water level above irradiated fuel   |                     | 2                               | indic<br>EVD<br>(Note       |
| fuel       1     2     3     4     5     6     NM   | 1 2 3 4 5 6 NM<br>RU2.1   |                     | Vital DC<br>Power               |                             |
| RA2.1<br>Uncovery of irradiated fuel in the REFUELING PATHWAY<br>RA2.2  | UNPLANNED water level drop in the REFUELING PATHWAY<br>as indicated by low water level alarm or indication<br>AND   |                     |                                 |                             |
| Damage to irradiated fuel resulting in a release of radioactivity<br><b>AND</b><br>A Trip 2 radiation alarm on <b>any</b> of the following radiation  | UNPLANNED rise in corresponding area radiation levels as<br>indicated by <b>EITHER</b> of the following radiation monitors:<br>- 1EMF17 (2EMF4) Spent Fuel Building Refueling Bridge                    |                     | 3                               |                             |
| <ul> <li>monitor indications:</li> <li>1EMF17 (2EMF4) Spent Fuel Building Refueling Bridge</li> <li>1EMF16 (2EMF3) Containment Building Refueling Bridge</li> </ul>   | <ul> <li>1EMF16 (2EMF3) Containment Building Refueling Bridge<br/>(Mode 6)</li> </ul>   |                     | Loss of CR ndications           |                             |
| (Mode 6)<br>- 1EMF42 (2EMF42) Fuel Building Ventilation<br>- 1EMF39 (2EMF39) Containment Gas  |   | -                   |                                 |                             |
| RA2.3<br>Spent fuel pool level <u>&lt;</u> -15 ft. (756 ft. ele.)<br>(KFP5350 or NVPG6530)  |   |                     | 4                               |                             |
| RA3Radiation levels that IMPEDE access to equipment necessary for<br>normal plant operations, cooldown or shutdown123456NM  |   |                     | NCS<br>Activity                 |                             |
| RA3.1<br>Dose rates > 15 mR/hr in EITHER of the following areas:<br>Control Room (1EMF12)   |   | -                   |                                 |                             |
| OR<br>Central Alarm Station (by survey)   | None  |                     | F                               |                             |
| <b>RA3.2</b><br>An UNPLANNED event results in radiation levels that prohibit<br>or IMPEDE access to <b>any</b> Table R-2 rooms or areas (Note 5)  |   | S                   | 5<br>NCS                        |                             |
| HA1 HOSTILE ACTION within the OWNER CONTROLLED AREA or<br>airborne attack threat within 30 minutes  | HU1 Confirmed SECURITY CONDITION or threat  | System<br>Malfunct. | Leakage                         |                             |
| 1     2     3     4     5     6     NM       HA1.1     A HOSTILE ACTION is occurring or has occurred within the   | 1     2     3     4     5     6     NM       HU1.1     A SECURITY CONDITION that does not involve a HOSTILE   | -                   |                                 |                             |
| OWNER CONTROLLED AREA as reported by the Security<br>Shift Supervision  | ACTION as reported by Security Shift Supervision<br>HU1.2<br>Notification of a credible security threat directed at the site  |                     |                                 |                             |
| A validated notification from NRC of an aircraft attack threat within 30 min. of the site   | <b>HU1.3</b><br>A validated notification from the NRC providing information   |                     |                                 |                             |
|   | of an aircraft threat   |                     | 6                               |                             |
|   | HU2 Seismic event greater than OBE levels   |                     | RPS<br>Failure                  |                             |
| None  | HU2.1<br>Seismic event > OBE as indicated by OBE EXCEEDED   |                     |                                 |                             |
| [Refer to EAL CA6.1 OR SA9.1 for escalation due to seismic event]   | Alarm on TAD-13, E7   |                     |                                 |                             |
|   | 1     2     3     4     5     6     NM       HU3.1  |                     |                                 |                             |
|   | A tornado strike within the PROTECTED AREA <b>HU3.2</b>   |                     |                                 |                             |
|   | to require manual or automatic electrical isolation of a<br>SAFETY SYSTEM component needed for the current  |                     | <b>7</b><br>Loss of             |                             |
| None<br>[Refer to EAL CA6.1 OR SA9.1 for escalation due to natural or<br>technological hazard]  | HU3.3<br>Movement of personnel within the PROTECTED AREA is   |                     | Comm.                           |                             |
|   | IMPEDED due to an offsite event involving hazardous materials (e.g., an offsite chemical spill or toxic gas release)  |                     |                                 |                             |
|   | <b>HU3.4</b><br>A hazardous event that results in on-site conditions sufficient<br>to prohibit the plant staff from accessing the site via personal<br>vohicles (Note 7)                                |                     | 8                               |                             |
|   | HU4 FIRE potentially degrading the level of safety of the plant   |                     | CMT<br>Failure                  |                             |
| [Refer to EAL CA6.1 OR SA9.1 for escalation due to FIRE]  | 1 2 3 4 5 6 NM<br>HU4.1   |                     |                                 |                             |
| Table H-1   | <ul> <li>A FIRE is <b>not</b> extinguished within 15 min. of <b>any</b> of the following FIRE detection indications (Note 1):</li> <li>Report from the field (i.e., visual observation)</li> </ul>      |                     |                                 |                             |
| Fire Areas  | <ul> <li>Receipt of multiple (more than 1) fire alarms or indications</li> <li>Field verification of a single fire alarm</li> <li>AND</li> <li>The FIRE is leasted within any Table H 1 area</li> </ul> |                     |                                 |                             |
| <ul> <li>- Auxiliary Building</li> <li>- Diesel Generator Rooms</li> </ul>  | <b>HU4.2</b><br>Receipt of a single fire alarm (i.e., no other indications of a   |                     | 9                               |                             |
| - FWST<br>- Dog Houses  | FIRE)<br>AND<br>The fire alarm is indicating a FIRE within any Table H-1 area   |                     | Hazardous<br>Event<br>Affecting |                             |
| - Standby Shutdown Facility (SSF)   | AND<br>The existence of a FIRE is not verified within 30 min. of<br>alarm receipt (Note 1)  |                     | Safety<br>Systems               |                             |
|   | <b>HU4.3</b><br>A FIRE within the plant PROTECTED AREA not extinguished within 60 min. of the initial report, alarm or indication (Note 1)  |                     |                                 |                             |
| None  | HU4.4<br>A FIRE within the plant PROTECTED AREA that requires   |                     | _                               | FG1.                        |
|   | firefighting support by an offsite fire response agency to extinguish   | Fiss                | •<br>ion                        | Loss o<br>AND               |
| normal plant operations, cooldown or shutdown   |   | Prod<br>Barr        | uct<br>iers                     | Loss C                      |
| HA5.1<br>Release of a toxic, corrosive, asphyxiant or flammable gas<br>into <b>any</b> Table H-2 rooms or areas   | None  |                     |                                 |                             |
| AND<br>Entry into the room or area is prohibited or IMPEDED (Note 5)  |   |                     |                                 |                             |
| Image: Additional control Room evacuation resulting in transfer of plant control to alternate locations     1   2   3   4   5   6   NM  |   |                     |                                 |                             |
| An event has resulted in plant control being transferred from<br>the Control Room to the Auxiliary Shutdown Panels or<br>Standby Shutdown, Eacility (SSE)   | None  |                     |                                 |                             |
|   |   | Tube<br>Leakag      | je                              |                             |
|   |   |                     |                                 |                             |
| HA7 Other conditions exist that in the judgment of the Emergency<br>Coordinator warrant declaration of an Alert   | HU7 Other conditions existing that in the judgment of the Emergency<br>Coordinator warrant declaration of a UE  | B. Inadeo<br>Heat   | juate 1                         | I. Core<br>condi            |
| HA7.1<br>Other conditions exist which, in the judgment of the   | HU7.1<br>Other conditions exist which in the judgment of the  | Remov               | val                             |                             |
| Emergency Coordinator, indicate that events are in progress<br>or have occurred which involve an actual or potential<br>substantial degradation of the level of safety of the plant or a  | Emergency Coordinator indicate that events are in progress or<br>have occurred which indicate a potential degradation of the<br>level of safety of the plant or indicate a security threat to           | С. СМТ              | 1                               | I. EMF                      |
| security event that involves probable life threatening risk to<br>site personnel or damage to site equipment because of<br>HOSTILE ACTION. Any releases are expected to be limited<br>to small fractions of the EPA Protective Action Guideling | racing protection has been initiated. No releases of<br>radioactive material requiring offsite response or monitoring<br>are expected unless further degradation of SAFETY<br>SYSTEMS occurs            | Radiat<br>NCS A     | ion /<br>ctivity 2              | "FC L<br>2. Dose<br>activit |
| exposure levels.  |   | D. CMT<br>Intear    | ty or                           | * 11                        |
|   | EU1 Damage to a loaded cask CONFINEMENT BOUNDARY  | Bypas               | s                               |                             |
| Transnuclear (TN-32)<br>m/hr (gamma) or 20 mrem/hr (neutron) on top of the cask   | EU1.1<br>Damage to a loaded canister CONFINEMENT BOUNDARY   |                     |                                 |                             |
| m/hr (gamma) or 40 mrem/hr (neutron) on the sides of<br>I neutron shield  | as indicated by an on-contact radiation reading on the<br>surface of a loaded spent fuel cask > <b>any</b> Table E-1 dose<br>limit  | E. EC               | 1.                              | Any co                      |
| above the radial neutron shield region<br>m/hr (gamma) or 400 mrem/hr (neutron) on the side   |   | Judgn               | ient                            | indicate                    |
| below the radial neutron shield region  |   |                     |                                 | _                           |
| 6 NM Sefuel No Mode   | KEMcGuire Nuclear StationClassification of EmergencyFAD-MC-EP-EAL-WALLCHARTS Rev 003  |                     |                                 |                             |
|   |   |                     |                                 |                             |

| <b>G</b> ENERAL EMERGENCY  | <u>S</u> ite AI  | REA EMERGEN   | CY  |   | LERT   |  |
|--|--|---|---|---|--|--|
| SG1 Prolonged loss of <b>all</b> offsite and <b>all</b> onsite AC power to essential buses   | SS1 Loss of <b>all</b> offs<br>for 15 minutes  | site and <b>all</b> onsite AC power to essential bus<br>s or longer   | Ses   | SA1 Loss of <b>all but one</b> AC po<br>for 15 minutes or longer  | ower source to es  |  |
| 1       2       3       4         SG1.1         Loss of all offsite and all onsite AC power capability to<br>essential 4160V buses 1(2)ETA and 1(2)ETB         AND EITHER:         - Restoration of at least one essential bus in < 4 hours is<br>not likely (Note 1)         - Core Cooling RED PATH conditions met   | 1<br>SS1.1<br>Loss of all offsite<br>essential 4160V b<br>for ≥ 15 min. (Note  | 234and all onsite AC power capability to<br>puses 1(2)ETA and 1(2)ETB<br>e 1)   |   | 12SA1.1AC power capability, Table1(2)ETA and 1(2)ETB reducefor ≥ 15 min. (Note 1)ANDAny additional single powerall AC power to SAFETY S   | 3 4<br>S-1, to essen<br>uced to a single<br>er source failur<br>SYSTEMS  |  |
| SG1 Loss of <b>all</b> essential AC and vital DC power sources for 15 minutes or longer  |  |   |   | Table S-1   | AC Power Sc  |  |
| 1234SG1.2Loss of all offsite and all onsite AC power capability to<br>essential 4160V buses 1(2)ETA and 1(2)ETB<br>for $\geq$ 15 min.ANDLoss of all 125 VDC power based on battery bus voltage<br>indications < 105 VDC on both vital DC buses EVDA and<br>EVDD for $\geq$ 15 min.<br>(Note 1)   | SS2 Loss of all vital<br>1<br>SS2.1<br>Loss of all 125 VI<br>indications < 105<br>EVDD for ≥ 15 mi   | DC power for 15 minutes or longer         2       3       4         DC power based on battery bus volta         VDC on both vital DC buses EVDA a         in. (Note 1)            | ge<br>and   | Offsite<br>- ATC (Trai<br>- SATA (Trai<br>- ATD (Trai<br>- SATB (Trai<br>- SATB (Trai<br>- D/G 1(2)<br>- D/G 1(2)   | in A)<br>ain A)<br>in B)<br>ain B)<br>A (Train A)<br>B (Train B  |  |
| None   | Table         - Reactor trip         - Runback >         - Electrical lo         - Safety inject   | <b>S-3 Significant Transients</b><br>25% thermal power<br>ad rejection > 25% electrical load<br>ction actuation   |   | SA3 UNPLANNED loss of Con<br>longer with a significant tra-<br><b>1 2</b><br><b>SA3.1</b><br>An UNPLANNED event re<br>or more Table S-2 parame<br>for ≥ 15 min. (Note 1)<br>AND<br>Any significant transient is | trol Room indicat<br>ansient in progres<br><b>3 4</b><br>sults in the ina<br>ters from withi<br>in progress, T |  |
| None   |  | None  |   | <ul> <li>Reactor power</li> <li>NCS level</li> <li>NCS pressure</li> <li>Core exit T/C temp</li> <li>Level in at least on</li> <li>Auxiliary feed flow</li> </ul>   | erature<br>e S/G<br>in at least one  |  |
| None   |  | None  |   |   | None   |  |
| None   | 1<br>SS6.1<br>An automatic or m<br>indicated by react<br>AND<br>All actions to shut<br>indicated by react<br>AND EITHER:<br>- Core Coolin<br>- Heat Sink F | nanual trip fails to shut down the read<br>or power ≥ 5%<br>t down the reactor are <b>not</b> successfu<br>or power ≥ 5%<br>ng RED PATH conditions met<br>RED PATH conditions met | Image: Same state of the successful in shutting down the reactor         1       1         SA6.1         An automatic or manual trip fails to shutindicated by reactor power ≥ 5%         AND         Manual trip actions taken at the reactor (manual reactor trip switches or turbine successful in shutting down the reactor power ≥ 5% (Note 8) |   |  |  |
| NOTES  |  |   |   | System  | Onsite   |  |
| <ul> <li>Note 1: The Emergency Coordinator should declare the outpon determining that time limit has been exceed be exceeded.</li> <li>Note 2: If an ongoing release is detected and the release unknown, assume that the release duration has specified time limit.</li> </ul>  | event promptly<br>ded, or will likely<br>e start time is<br>exceeded the   |   | Public<br>Intern<br>Onsite<br>DEMN<br>Offsite   | Address<br>al Telephones<br>Radios<br>NET<br>Radio System   | X<br>X<br>X  |  |
| <ul> <li>Note 3: If the effluent flow past an effluent monitor is known stopped, indicating that the release path is isolat monitor reading is no longer VALID for classification</li> <li>Note 4: The pre-calculated effluent monitor values prese RA1.1, RS1.1 and RG1.1 should be used for emclassification assessments until the results from</li> </ul>   | own to have<br>red, the effluent<br>tion purposes.<br>ented in EALs<br>hergency<br>a dose  | None  | Comn<br>NRC I<br>Telecc   | nercial Telephones<br>Emergency<br>ommunications System (ETS  | S)   |  |
| <ul> <li>Note 5: If the equipment in the listed room or area was a or out-of-service before the event occurred, then classification is warranted.</li> </ul>   | already inoperable<br>no emergency   |   |   | - Seismic<br>- Internal o   | event (earthqu   |  |
| <ul> <li>Note 6: If CONTAINMENT CLOSURE is re-established p the 30-minute time limit, declaration of a Genera not required.</li> <li>Note 7: This EAL does not apply to routine traffic impediately apply apply to routine traffic impediately apply to routine traffi</li></ul> | orior to exceeding<br>Il Emergency is<br>ments such as fog.  | None  |   | - High win<br>- FIRE<br>- EXPLOS  | ds or tornado s<br>SION  |  |
| <ul> <li>snow, ice, or vehicle breakdowns or accidents.</li> <li>Note 8: A manual trip action is any operator action, or se causes the control rods to be rapidly inserted interview.</li> </ul>   | et of actions, which<br>o the core, and<br><del>s or</del>   |   |   | - Other ev<br>characte<br>Shift Mar   | ents with similarity<br>ristics as detern<br>ager  |  |
| <ul> <li>Note 9: In the absence of reliable NCS temperature indic the loss of decay heat removal capability, classifi based on the NCS pressure increase criteria who based on time to boil data when in Mode 6.</li> </ul>  | cation caused by<br>ication should be<br>en in Mode 5 or   | None  |   | SA9 Hazardous event affec<br>current operating mode<br>1 2<br>SA9.1<br>The occurrence of any Ta   | ting a SAFETY S<br>a<br>3 4<br>ble S-5 hazard  |  |
| Note 10: If the loss of containment cooling threshold is explose of both trains of VX-CARF, this EAL only appertain of VX-CARF is not operating, per design, af actuation delay for greater than or equal to 15 m  | ceeded due to<br>plies if at least one<br>fter the 10 minute<br>inutes.  |   |   | <ul> <li>Event damage has can be for the current operation</li> <li>AND EITHER one of the current operation</li> </ul>  | aused indicatio<br>train of a SAFI<br>ting mode<br>e following:  |  |
| <ul> <li>Note 11: If the affected SAFETY SYSTEM was already ind service before the hazardous event occurred, the classification is not warranted.</li> <li>Note 12: If the hazardous event only resulted in VISIBLE indications of degraded performance to at least SAFETY SYTSEM, then this emergency classifi warranted.</li> </ul>  | operable or out of<br>en this emergency<br>DAMAGE, with no<br>one train of a<br>ication is not   |   |   | <ul> <li>Event damage has can performance to a second for the currer</li> <li>Event damage has respectively as a second train of the S current operating moto (Note 11, 12)</li> </ul>                          | aused indicatio<br>cond train of th<br>nt operating me<br>esulted in VISII<br>AFETY SYSTI<br>de                |  |
| FG1.1 1 2 3 4  | FS1.1 1  | 2 3 4   |   | FA1.1 1 2 3   | 8 4  |  |
| oss of <b>any</b> two barriers<br><b>AND</b><br>oss <b>OR</b> potential loss of third barrier (Table F-1)  | Loss <b>OR</b> potential   | l loss of <b>any</b> two barriers (Table F-1)   |   | <b>Any</b> loss <b>OR any</b> potential (Table F-1)   | l loss of either   |  |

|  | Table F-1 Fission Product Barrier Threshold Matrix   |   |  |   |  |  |  |  |  |  |
|--|--|---|--|---|--|--|--|--|--|--|
| Fuel Clad (F   | C) Barrier   | Reactor Coolant System (NCS) Barrier  |  |   |  |  |  |  |  |  |
| Loss   | Potential Loss   | Loss  | Potential Loss   |   |  |  |  |  |  |  |
| None   | None   | <ol> <li>An automatic or manual ECCS (SI)<br/>actuation required by EITHER:</li> <li>UNISOLABLE NCS leakage</li> <li>SG tube RUPTURE</li> </ol> | <ol> <li>Operation of a standby charging<br/>pump is required by EITHER:         <ul> <li>UNISOLABLE NCS leakage</li> <li>SG tube leakage</li> </ul> </li> </ol> | 1. A leaking<br>FAULTE  |  |  |  |  |  |  |
|  |  |   |  |   |  |  |  |  |  |  |
| re Cooling- <mark>RED</mark> PATH<br>ditions met   | <ol> <li>Core Cooling-ORANGE PATH<br/>conditions met</li> </ol>  |   | 1. Heat Sink-RED PATH<br>conditions met<br>AND   |   |  |  |  |  |  |  |
|  | <ol> <li>Heat Sink-RED PATH<br/>conditions met<br/>AND<br/>Heat Sink is required</li> </ol>  | None  | Heat Sink is required  |   |  |  |  |  |  |  |
| F51A/B > Table F-2 column<br>CLoss"<br>se equivalent I-131 coolant<br>vity > 300 μCi/gm    | None   | <ol> <li>EMF51A/B &gt; Table F-2 column<br/>"NCS Loss"</li> </ol>   | None   |   |  |  |  |  |  |  |
| None   | None   | None  | None   | <ol> <li>Containn</li> <li>AND I</li> <li>Co</li> <li>UN</li> <li>Co</li> </ol> |  |  |  |  |  |  |
| condition in the opinion of the rgency Coordinator that ates loss of the fuel clad barrier | <ol> <li>Any condition in the opinion of<br/>the Emergency Coordinator that<br/>indicates potential loss of the<br/>fuel clad barrier</li> </ol> | 1. <b>Any</b> condition in the opinion of the<br>Emergency Coordinator that<br>indicates loss of the NCS barrier                                | 1. <b>Any</b> condition in the opinion of the<br>Emergency Coordinator that<br>indicates potential loss of the NCS<br>barrier                                    | 1. Any cor<br>Emerge<br>the cont  |  |  |  |  |  |  |





|   | <u>U</u> NUSUAL EVENT  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| sential buses   | SU1 Loss of <b>all</b> offsite AC power capability to essential buses for 15 minutes or longer   |  |  |  |  |  |  |  |
| ntial 4160V buses   | 1234SU1.1Loss of all offsite AC power capability, Table S-1, to  |  |  |  |  |  |  |  |
| e power source  | essential 4160V buses 1(2)ETA and 1(2)ETB for $\ge$ 15 min. (Note 1)   |  |  |  |  |  |  |  |
| re will result in loss of   |  |  |  |  |  |  |  |  |
| ources  |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |
|   | Nono   |  |  |  |  |  |  |  |
|   | None   |  |  |  |  |  |  |  |
| tions for 15 minutes or<br>ss   | SU3 UNPLANNED loss of Control Room indications for 15 minutes or longer  |  |  |  |  |  |  |  |
|   | 1     2     3     4       SU3.1  |  |  |  |  |  |  |  |
| ability to monitor one<br>in the Control Room                               | or more Table S-2 parameters from within the Control Room for $\geq$ 15 min. (Note 1)  |  |  |  |  |  |  |  |
| Гable S-3   | SU4 NCS activity greater than Technical Specification allowable limits   |  |  |  |  |  |  |  |
| ameters   | 1 2 3 4 SU4.1  |  |  |  |  |  |  |  |
|   | NCS activity > <b>any</b> of the following Technical Specification<br>3.4.16 limits:   |  |  |  |  |  |  |  |
|   | <ul> <li>Dose Equivalent I-131 &gt; 60 μCi/gm</li> <li>Dose Equivalent Xe-133 &gt; 280 μCi/gm</li> </ul>   |  |  |  |  |  |  |  |
| e S/G   | SU5 NCS leakage for 15 minutes or longer       1     2     3     4       SU5.1   |  |  |  |  |  |  |  |
|   | NCS unidentified or pressure boundary leakage<br>> 10 gpm for ≥ 15 min.<br>OR  |  |  |  |  |  |  |  |
|   | NCS identified leakage > 25 gpm for ≥ 15 min.<br>OR<br>Leakage from the NCS to a location outside containment  |  |  |  |  |  |  |  |
| the reactor and   | > 25 gpm for $\ge$ 15 min.<br>(Note 1)<br>SU6 Automatic or manual trip fails to shut down the resetter   |  |  |  |  |  |  |  |
| eactor control consoles are   | Automatic or manual trip rails to shut down the reactor  |  |  |  |  |  |  |  |
| down the reactor as   | SU6.1<br>An automatic trip did <b>not</b> shut down the reactor as<br>indicated by reactor power $\geq$ 5% after <b>any</b> RPS setpoint   |  |  |  |  |  |  |  |
| control console<br>manual trip) are <b>not</b>                              | is exceeded<br>AND<br>A subsequent automatic trip or manual trip action taken  |  |  |  |  |  |  |  |
| as indicated by reactor   | at the reactor control console (manual reactor trip<br>switches or turbine manual trip) is successful in shutting<br>down the reactor as indicated by reactor power < 5%<br>(Note 8) |  |  |  |  |  |  |  |
| ods<br>ORO NRC  | <b>SU6.2</b><br>A manual trip did <b>not</b> shut down the reactor as indicated by   |  |  |  |  |  |  |  |
|   | reactor power ≥ 5% after <b>any</b> manual trip action was initiated<br><b>AND</b><br>A subsequent automatic trip or manual trip action taken at the                                 |  |  |  |  |  |  |  |
| x   | reactor control console (manual reactor trip switches or<br>turbine manual trip) is successful in shutting down the reactor<br>as indicated by reactor power < 5% (Note 8)           |  |  |  |  |  |  |  |
| x x x   | SU7 Loss of <b>all</b> onsite or offsite communications capabilities   |  |  |  |  |  |  |  |
| x   | SU7.1<br>Loss of all Table S-4 onsite communication methods<br>OR  |  |  |  |  |  |  |  |
| us Events   | Loss of <b>all</b> Table S-4 ORO communication methods<br><b>OR</b><br>Loss of <b>all</b> Table S-4 NRC communication methods  |  |  |  |  |  |  |  |
| Jake)   | SU8 Failure to isolate containment or loss of containment pressure contro  |  |  |  |  |  |  |  |
| strike  | SU8.1<br>EITHER:   |  |  |  |  |  |  |  |
| lar hazard  | OR<br>Containment pressure > 3 psig with EITHER a failure of   |  |  |  |  |  |  |  |
| rmined by the   | both trains of NS <b>OR</b> failure of both trains of VX-CARF for $\geq$ 15 min. (Notes 1, 10)   |  |  |  |  |  |  |  |
| SYSTEM needed for the   |  |  |  |  |  |  |  |  |
| dous event  | None   |  |  |  |  |  |  |  |
| ons of degraded<br>ETY SYSTEM needed  | <b>КЛКІС</b>   |  |  |  |  |  |  |  |
| ons of degraded<br>he SAFETY SYSTEM   |  |  |  |  |  |  |  |  |
| ode.<br>BLE DAMAGE to the<br>EM needed for the                              |  |  |  |  |  |  |  |  |
|   | Table F-2 Containment Radiation - R/hr (EMF51A & B)  |  |  |  |  |  |  |  |
|   | Time After S/D<br>(Hrs)FC LossNCS LossCMT Potential<br>Loss  |  |  |  |  |  |  |  |
| Fuel Clad or NCS  | 0 - 1         550         8.8         5500           1 - 2         400         8.4         4000  |  |  |  |  |  |  |  |
|   | 2 - 8     160     7.0     1600       >8     100     6.2     1000   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |
| Contai  | nment (CMT) Barrier  |  |  |  |  |  |  |  |
| or RUPTURED SG is   | Potential Loss   |  |  |  |  |  |  |  |
|   | None   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |
| Nico -  | 1. Core Cooling-RED PATH<br>conditions met<br>AND  |  |  |  |  |  |  |  |
| NONE  | Restoration procedures <b>not</b><br>effective within 15 min. (Note 1)   |  |  |  |  |  |  |  |
| None  | <ol> <li>EMF51A/B &gt; Table F-2 column</li> <li>"CMT Potential Loss"</li> </ol>   |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |
| nent isolation is required<br>I <b>THER</b><br>ntainment integrity has b    | 1. Containment-RED PATH<br>conditions met  |  |  |  |  |  |  |  |
| ed on EC judgment<br>ISOLABLE pathway from<br>Intainment to the environ     | <ul> <li>2. Containment hydrogen concentration</li> <li>&gt; 6%</li> <li>3. Containment pressure &gt; 3 psig with</li> </ul>   |  |  |  |  |  |  |  |
| ns of NCS leakage outsi<br>ent  | the of <b>EITHER</b> a failure of both trains of NS <b>OR</b> failure of both trains of VX-CARF for $\geq$ 15 min. (Notes 1, 10)   |  |  |  |  |  |  |  |
| dition in the opinion of th<br>ncy Coordinator that indi<br>ainment barrier | e 1. <b>Any</b> condition in the opinion of the<br>Emergency Coordinator that indicates  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |
|   |  |  |  |  |  |  |  |  |



|                                   |   | <b>GENERALEM</b><br>RG1 Release of gaseous radioactivity res<br>than 1,000 mrem TEDE or 5,000 mr   | ERGENO<br>ulting in offsite dose g<br>em thyroid CDE   | reater   | RS1 Rel<br>100  | EAR<br>ease of gaseous<br>mrem TEDE or  | <b>EXAMPLE</b><br>radioactivity resulting in<br>500 mrem thyroid CDE   | CGEN<br>offsite dose gr   | reater than  |  |
|-----------------------------------|---|--|--|--|---|---|--|---|--|--|
|                                   | <b>1</b><br>Rad<br>Effluent               | 1234RG1.1Reading on any Table R-1 effluent ra"GE" for $\geq 15$ min. (Notes 1, 2, 3, 4)RG1.2Dose assessment using actual mete> 1,000 mrem TEDE or 5,000 mrembeyond the SITE BOUNDARY (NoteRG1.3Field survey results indicate EITHEFbeyond the SITE BOUNDARY:- Closed window dose rates > 1,000continue for $\geq 60$ min Analyses of field survey samples i> 5,000 mrem for 60 min. of inhala  | RG1.1RS1.1Reading on any Table R-1 effluent radiation monitor > column<br>"GE" for $\ge 15$ min. (Notes 1, 2, 3, 4)RG1.2Dose assessment using actual meteorology indicates doses<br>> 1,000 mrem TEDE or 5,000 mrem thyroid CDE at or<br>beyond the SITE BOUNDARY (Note 4)RS1.2RG1.3Tield survey results indicate EITHER of the following at or<br>beyond the SITE BOUNDARY:<br>- Closed window dose rates > 1,000 mR/hr expected to<br>continue for $\ge 60$ min.RS1.1Ralyses of field survey samples indicate thyroid CDE<br>> 5,000 mrem for 60 min. of inhalation.<br>(Notes 1, 2)RS1.1Rundle Site Source Site Site Site Site Site Site Site Sit |  |   |   |  |   |  |  |
| R                                 |   | (Notes 1, 2)   | ored to at least the tor   | o of the   | (Notes 7  | nent fuel pool lev  | rel at the top of the fuel r   | acks  |  |  |
| Abnorm.<br>Rad<br>Levels<br>/ Rad | 2   | Image: No2 open rule poor level cannot be restricted racks for 60 minutes or longer         Image: | 345<br>≤ -25 ft. (746 ft. ele.)<br>530)  | <u>6</u>   | <u>VM</u><br>F<br>I   |   |  |   |  |  |
| Effluent                          | Irradiated<br>Fuel Event                  | Release Point         Unit Vent Noble Gas Low         Unit Vent Noble Gas High   | Table R-1 Effluent Monitor Classif         Release Point       Monitor       GE         Unit Vent Noble Gas Low       1(2)EMF36L          Unit Vent Noble Gas High       1(2)EMF36H       2.61E+4 cpm  |  |   |   |  | UE<br>3.10E+3 c   | /<br>r<br>   |  |
|                                   |   | Liquid Waste Effluent Line High<br>CVUCDT High   | EMF49H<br>1(2)EMF44H<br>Table R-2  | <br><br>Safe Op  | <br><br>eration &   | <br><br>Shutdown R  | <br><br>ooms/Areas   | 2.15E+2 c<br>4.29E+2 c  | ;pm F<br>;pm (   |  |
|                                   | <b>3</b><br>Area Rad<br>Levels            | Bldg. Elevation<br>Auxiliary 716'<br>Auxiliary 750'<br>Auxiliary 733'  | Unit<br>P/C, RHole, near   | 1 Room//<br>1NI-185,<br>0 (1EMX<br>03 (1ETA<br>(Elec. Pe<br>2 (1EMXB<br>05 (1ETB   | Area<br>Outside C<br>A)<br>()<br>ene.)<br>8-1)<br>8)  | AD 212 AB   | Unit 2 Room/Area<br>PC thru CAD Door, F<br>820 (2EMXA)<br>805 (2ETA)<br>713 (Elec. Pene.)<br>724 (2EMXB-1)<br>716 (2ETB)   | Moc<br>F59 4<br>3,<br>3,<br>3,<br>3,<br>3,<br>3,<br>3,  | Jes     F       4     6       4     6       4     6       4     6       4     6  |  |
|                                   | 1   |  |  |  | HS1 HC<br>HS1.1<br>A HOST<br>PROTE<br>Supervi   | DSTILE ACTION<br>1 2<br>TILE ACTION<br>CTED AREA<br>ision   | within the Protected Area<br>3 4 5<br>is occurring or has o<br>as reported by the So   | 6 1<br>ccurred with<br>ecurity Shift  | <b>VM</b>  |  |
|                                   | Security                                  | None Note 1: The Emerg promptly up exceeded,   | <b>NOTES</b><br>ency Coordinator s<br>oon determining the<br>or will likely be exc   | should de<br>at time lir<br>ceeded.  | eclare the<br>mit has be  | event<br>en   | Nana   |   |  |  |
|                                   | Seismic<br>Event                          | Note 2: If an origon<br>is unknown<br>the specifie<br>Note 3: If the efflue<br>stopped, in<br>effluent mo<br>purposes.   | , assume that the r<br>d time limit.<br><del>nt flow past an effl</del><br>dicating that the re<br>nitor reading is no   | release d<br>uent mor<br>lease pa<br>longer V  | hitor is kno<br>th is isolat<br>ALID for c  | when the have<br>ed, the<br>lassification   | None   |   | [1   |  |
|                                   | <b>3</b><br>Natural or<br>Tech.<br>Hazard | purposes.       None         Note 4: The pre-calculated effluent monitor values presented in<br>EALs RA1.1, RS1.1 and RG1.1 should be used for<br>emergency classification assessments until the results from<br>a dose assessment using actual meteorology are available.       None         Note 5: If the equipment in the listed room or area was already<br>indemable or out-of-service before the event occurred, then<br>no emergency classification is warranted.       None         Note 6: If CONTAINMENT CLOSURE is re-established prior to       None  |  |  |   |   |  |   |  |  |
|                                   |   | <ul> <li>Note 7: This EAL de as fog, snow</li> <li>Note 8: A manual tr which cause core, and d or impleme</li> <li>Note 9: In the abse caused by f classificatio increase cri data when i</li> <li>Note 10: If the loss due to loss</li> </ul>   | oes not apply to ro<br>w, ice, or vehicle b<br>rip action is any op<br>es the control rods<br>loes not include m<br>ntation of boron inj<br>nce of reliable NCS<br>the loss of decay h<br>on should be based<br>iteria when in Mode<br>in Mode 6.  | outine traf<br>reakdown<br>erator ac<br>to be raj<br>anually c<br>jection st<br>S temper<br>neat remo<br>d on the N<br>e 5 or ba<br>oling thre<br>X-CARE | fic impedia<br>ns or accion<br>etion, or se<br>pidly inser<br>driving in c<br>trategies.<br>rature indic<br>oval capab<br>NCS press<br>sed on time<br>shold is ex-<br>this FAL of | ments such<br>dents.<br>It of actions,<br>ted into the<br>ontrol rods<br>cation<br>ility,<br>sure<br>ne to boil   |  |   |  |  |
| Hazards                           | <b>4</b><br>Fire                          | if at least or<br>after the 10<br>to 15 minut<br><b>Note 11</b> : If the affect<br>out of servi<br>this emerge<br><b>Note 12</b> : If the haza<br>with no ind<br>train of a S<br>classification  | <ul> <li>due to loss of both trains of VX-CARF, this EAL only applies if at least one train of VX-CARF is not operating, per design, after the 10 minute actuation delay for greater than or equal to 15 minutes.</li> <li>Note 11: If the affected SAFETY SYSTEM was already inoperable or out of service before the hazardous event occurred, then this emergency classification is not warranted.</li> <li>Note 12: If the hazardous event only resulted in VISIBLE DAMAGE, with no indications of degraded performance to at least one train of a SAFETY SYTSEM, then this emergency classification is not warranted.</li> </ul>                 |  |   |   |  |   |  |  |
|                                   |   | Bldg. Elevation  | Table H-2<br>Unit  | <mark>Safe Op</mark><br>1 Room//   | eration &<br>Area   | Shutdown R  | ooms/Areas<br>Unit 2 Room/Area   | Мос   | tes  |  |
|                                   | 5<br>Hazardous<br>Gases                   | Auxiliary 716'<br>Auxiliary 750'<br>Auxiliary 733'   | P/C, RHole, near 1<br>80(<br>8(<br>702 (<br>722<br>7(  | 1NI-185,<br>0 (1EMX/<br>03 (1ETA<br>(Elec. Pe<br>(1EMXB<br>05 (1ETB  | Outside C<br>A)<br>()<br>(ne.)<br>(-1)<br>(-1)  | AD 212 AB   | PC thru CAD Door, F<br>820 (2EMXA)<br>805 (2ETA)<br>713 (Elec. Pene.)<br>724 (2EMXB-1)<br>716 (2ETB)   | F59 4<br>3,<br>3,<br>3<br>3,<br>3,<br>3,<br>3,  | 4<br>4<br>4<br>4<br>4<br>4   |  |
|                                   | 6<br>Control<br>Room<br>Evacuation        |  | <b>IS</b>  |  | HS6 Inab<br>Roo<br>HS6.1<br>An ever<br>the Cor<br>Standby<br>AND<br>Control<br>reestab<br>- Rea   | ility to control a m<br>1 2<br>Int has resulted<br>trol Room to<br>y Shutdown F<br>of <b>any</b> of the<br>lished within <i>r</i><br>activity (Mode   | 345d in plant control bein<br>the Auxiliary Shutdov<br>acility (SSF)following key safety to<br>15 min. (Note 1):<br>s 1, 2 and 3 only)   | g transferre<br>n Panels or   | ntrol H  |  |
|                                   |   | HG7 Other conditions exist which in the ju<br>Coordinator warrant declaration of a   | Idgment of the Emerge<br>General Emergency   | ency   | - Col<br>- NC<br>HS7 Oth<br>Coo   | re Cooling<br>S heat remov<br>her conditions ex<br>prdinator warran   | al<br>isting that in the judgmen<br>t declaration of a Site Are  | t of the Emerg<br>a Emergency   | jency ł  |  |
|                                   | <b>7</b><br>EC<br>Judgment                | 1234HG7.1Other conditions exist which in the<br>Emergency Coordinator indicate the<br>or have occurred which involve active<br>substantial core degradation or me<br>of containment integrity or HOSTIL<br>an actual loss of physical control of<br>be reasonably expected to exceed<br>Guideline exposure levels offsite for<br>immediate site area   | judgment of the<br>at events are in pro-<br>ual or IMMINENT<br>Iting with potential<br>E ACTION that res<br>t the facility. Releas<br>EPA Protective Act<br>or more than the   | IM<br>ogress<br>for loss<br>sults in<br>ses can<br>tion  | HS7.1<br>Other c<br>Emerge<br>or have<br>of plant<br>HOSTIL<br>maliciou<br>could le<br>access<br>Any rele<br>which e<br>levels b  | 1 2<br>onditions exis<br>ency Coordina<br>occurred whi<br>functions nee<br>E ACTION the<br>us acts, (1) to<br>ead to the like<br>to equipment<br>eases are not<br>exceed EPA P<br>beyond the SI | 3 4 5<br>t which in the judgme<br>tor indicate that ever<br>ch involve actual or li<br>eded for protection of<br>at results in intention<br>ward site personnel of<br>y failure of or, (2) that<br>needed for the prote<br>expected to result in<br>rotective Action Guide<br>TE BOUNDARY. | 6 N<br>ent of the<br>ts are in pro-<br>kely major fa<br>the public of<br>al damage of<br>or equipment<br>t prevent eff<br>ction of the<br>exposure le<br>eline exposu | VM   |  |
| IS                                | E   | NA<br>- 190 mrem/hr (ga<br>(excludes air inle<br>- 10 mrem/hr (neu<br>(excludes air inle<br>- 900 mrem/hr (ne<br>the cask (exclude   | C Magnastor<br>mma) on the side o<br>t/outlet ports)<br>tron) on the side o<br>t/outlet ports)<br>utron + gamma) or<br>es air inlet/outlet po  | of the cas<br>f the cas<br>n the top<br>orts)  | sk - 10<br>of<br>k - 10<br>the<br>of - 20<br>an   | )0 mrem/hr (n<br>the cask<br>)0 mrem/hr (n<br>e cask<br>)0 mrem/hr (n<br>nd outlets   | Table E-1 ISFSI Dos         NAC UMS         eutron + gamma) on         eutron + gamma) on         eutron + gamma) at a   | the side<br>the top of<br>air inlets  | <ul> <li>120 mrem,</li> <li>340 mrem,</li> <li>the radial i</li> <li>560 mrem,</li> <li>surfaces a</li> <li>220 mrem,</li> <li>surfaces b</li> </ul> |  |
| Мс                                | odes:                                     | 12Power OperationsStar   | tup  | 3<br>Hot Sta   | ndby  | Hot Sł  | 4<br>nutdown Col   | 5<br>d Shutdow  | vn   |  |

| RA1 Release of gaseous or liquid radioactivity resulting in offsite dose  | RU1 Release of gaseous or liquid radioactivity greater than 2 times the   |  |   | <b>GENERAL EME</b>   |
|---|---|--|---|--|
| Image: the first term in the following at or beyond the SITE BOUNDARY is not the term in the following at or beyond the SITE BOUNDARY:Analysis of term in the first term in the following at term in the following term in the following term in the following term in the following term is not term in the following term in the following term in the following term is not term in the following term in the following term is not term in the following term in the following term is not term in the following term in the following term is not term in the following term in the following term is not term in the following term in the following term is not term in the following term in the following term is not term in the following term in the following term in the following term is not term in the following term in the following term in the following term in the following term is not term in the following term in the following term is not term in the following term in term in the following term in the following term in term in term in the following term in term i | Side initialities of longer123456NMRU1.1Reading on any Table R-1 effluent radiation monitor<br>> column "UE" for $\geq 60$ min. (Notes 1, 2, 3)RU1.2Sample analysis for a gaseous or liquid release indicates a<br>concentration or release rate > 2 x SLC limits for $\geq 60$ min.<br>(Notes 1, 2)  |  | 1<br>NCS<br>Level   | CG1.1<br>NCS water level cannot be monitored f<br>AND<br>Core uncovery is indicated by any of<br>- UNPLANNED increase in any Tab<br>level due to a loss of NCS inventor<br>- Visual observation of UNISOLABL<br>- Reactor Building Refueling Bridge<br>(2EMF3) reading > 9,000 mR/hr<br>- Erratic Source Range or Wide Rar<br>indication<br>AND<br>Any Containment Challenge indication, |
| <ul> <li>Analyses of field survey samples indicate thyroid CDE &gt; 50 mrem for 60 min. of inhalation. (Notes 1, 2)</li> <li>RA2 Significant lowering of water level above, or damage to, irradiated fuel</li> <li>1 2 3 4 5 6 NM</li> <li>RA2.1</li> <li>Uncovery of irradiated fuel in the REFUELING PATHWAY</li> <li>RA2.2</li> <li>Damage to irradiated fuel resulting in a release of radioactivity AND</li> <li>A Trip 2 radiation alarm on any of the following radiation monitor indications: <ul> <li>1 EMF17 (2EMF4) Spent Fuel Building Refueling Bridge</li> <li>1 EMF16 (2EMF3) Containment Building Refueling Bridge</li> <li>1 EMF16 (2EMF3) Containment Gas</li> </ul> </li> <li>RA2.3</li> <li>Spent fuel pool level ≤ -15 ft. (756 ft. ele.) (KFP5350 or NVPG6530)</li> <li>RA3. Radiation levels that IMPEDE access to equipment necessary for normal plant operations, cooldown or shutdown <ul> <li>1 2 3 4 5 6 NM</li> </ul> </li> <li>RA3.1</li> <li>Dose rates &gt; 15 mR/hr in EITHER of the following areas: Control Room (1EMF12) OR Central Alarm Station (by survey)</li> <li>RA3.2</li> <li>An UNPLANNED event results in radiation levels that prohibit or IMPEDE access to any Table R-2 rooms or areas (Note 5)</li> <li>HA1 HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat within 30 minutes</li> </ul>  | RU2       Unplanned loss of water level above irradiated fuel         1 | C<br>Cold SD/<br>Refuel<br>System<br>Malfunct. | 2<br>Loss of<br>Essential<br>AC<br>Power<br>3<br>NCS<br>Temp.<br>4<br>Loss of<br>Vital DC<br>Power<br>5<br>Loss of<br>Comm. | - CONTAINME<br>- Containment<br>- UNPLANNED<br>Table C-6 Sum<br>- NCDT<br>- PRT<br>- CFAE sump<br>- ND/NS sump<br>- RHT<br>- WDT<br>- WEFT<br>- SRST<br>None<br>None   |
| 1       2       3       4       5       6       NM         HA1.1         A HOSTILE ACTION is occurring or has occurred within the OWNER CONTROLLED AREA as reported by the Security Shift Supervision         HA1.2         A validated notification from NRC of an aircraft attack threat within 30 min. of the site         None         Image: Refer to EAL CA6.1 OR SA9.1 for escalation due to seismic event]  | 1       2       3       4       5       6       NM         HU1.1       A SECURITY CONDITION that does not involve a HOSTILE ACTION as reported by the Security Shift Supervision       HOSTILE ACTION as reported by the Security Shift Supervision         HU1.2       Notification of a credible security threat directed at the site         HU1.3       A validated notification from the NRC providing information of an aircraft threat         HU2 Seismic event greater than OBE levels         1       2       3       4       5       6       NM         HU2.1       Seismic event > OBE as indicated by OBE EXCEEDED alarm on 1AD-13, E7   |  | 6<br>Hazardous<br>Event<br>Affecting<br>Safety<br>Systems   | None   |
| None<br>[Refer to EAL CA6.1 OR SA9.1 for escalation due to natural or<br>technological hazard]  | HU3 Hazardous event         1       2       3       4       5       6       NM         HU3.1         A tornado strike within the PROTECTED AREA         HU3.2         Internal room or area FLOODING of a magnitude sufficient to require manual or automatic electrical isolation of a SAFETY SYSTEM component needed for the current operating mode         HU3.3         Movement of personnel within the PROTECTED AREA is IMPEDED due to an offsite event involving hazardous materials (e.g., an offsite chemical spill or toxic gas release)         HU3.4         A hazardous event that results in on-site conditions sufficient to prohibit the plant staff from accessing the site via personal vehicles (Note 7)  |  |   | Note 1: The Emerge<br>promptly up<br>exceeded, o<br>Note 2: If an ongoing<br>is unknown,<br>the specified<br>Note 3: If the effluen  |
| Table H-1         Fire Areas         - Containment         - Auxiliary Building         - Diesel Generator Rooms         - FWST         - Dog Houses         - Standby Shutdown Facility (SSF)  | Wendles (Note 7)         HU4 FIRE potentially degrading the level of safety of the plant         1       2       3       4       5       6       NM         HU4.1         A FIRE is not extinguished within 15 min. of any of the following FIRE detection indications (Note 1):         A FIRE detection indications (Note 1):         - Report from the field (i.e., visual observation)         - Receipt of multiple (more than 1) fire alarms or indications         - Field verification of a single fire alarm         AND         The FIRE is located within any Table H-1 area         HU4.2         Receipt of a single fire alarm (i.e., no other indications of a FIRE)         AND         The fire alarm is indicating a FIRE within any Table H-1 area         AND         The existence of a EIRE is not verified within 30 min. of   |  |   | stopped, ind<br>effluent mon<br>purposes.<br>Note 4: The pre-calc<br>EALs RA1.1<br>emergency of<br>a dose asses<br>Note 5: If the equipm<br>inoperable of<br>no emergend<br>Note 6: If CONTAINI<br>exceeding th<br>Emergency if<br>Note 7: This EAL do<br>as fog, snow<br>Note 8: A manual trip  |
| None<br>HA5 Gaseous release IMPEDING access to equipment necessary for<br>normal plant operations, cooldown or shutdown   | <ul> <li>HU4.3</li> <li>A FIRE within the plant PROTECTED AREA not extinguished within 60 min. of the initial report, alarm or indication (Note 1)</li> <li>HU4.4</li> <li>A FIRE within the plant PROTECTED AREA that requires firefighting support by an offsite fire response agency to extinguish</li> </ul>  |  |   | which cause<br>core, and <b>do</b><br>or implemen<br><b>Note 9</b> : In the absen<br>caused by th<br>classification<br>increase crit<br>data when in<br><b>Note 10</b> : If the loss of<br>due to loss of<br>if at least on  |
| 3       4         HA5.1         Release of a toxic, corrosive, asphyxiant or flammable gas<br>into any Table H-2 rooms or areas<br>AND         Entry into the room or area is prohibited or IMPEDED (Note 5)         HA6 Control Room evacuation resulting in transfer of plant control to<br>alternate locations         1       2       3       4       5       6       NM         HA6.1         An event has resulted in plant control being transferred from  | None  |  |   | after the 10 to<br>to 15 minute<br><b>Note 11</b> : If the affecte<br>out of servic<br>this emerger<br><b>Note 12</b> : If the hazar<br>with no indic<br>train of a S/<br>classificatio  |
| the Control Room to the Auxiliary Shutdown Panels or<br>Standby Shutdown Facility (SSF)   | None<br>HU7 Other conditions existing that in the judgment of the Emergency<br>Coordinator warrant declaration of a UE  |  |   |  |
| 1       2       3       4       5       6       NM         HA7.1         Other conditions exist which, in the judgment of the Emergency Coordinator, indicate that events are in progress or have occurred which involve an actual or potential substantial degradation of the level of safety of the plant or a security event that involves probable life threatening risk to site personnel or damage to site equipment because of HOSTILE ACTION. Any releases are expected to be limited to small fractions of the EPA Protective Action Guideline exposure levels.  | 123456NMHU7.1Other conditions exist which in the judgment of the<br>Emergency Coordinator indicate that events are in progress or<br>have occurred which indicate a potential degradation of the<br>level of safety of the plant or indicate a security threat to<br>facility protection has been initiated. No releases of<br>radioactive material requiring offsite response or monitoring<br>are expected unless further degradation of SAFETY<br>SYSTEMS occurs.EU1 Damage to a loaded cask CONFINEMENT BOUNDARY123456NM  |  |   |  |
| n/hr (gamma) or 20 mrem/hr (neutron) on top of the cask<br>n/hr (gamma) or 40 mrem/hr (neutron) on the sides of<br>neutron shield<br>n/hr (gamma) or 280 mrem/hr (neutron) on the side<br>above the radial neutron shield region<br>n/hr (gamma) or 400 mrem/hr (neutron) on the side<br>below the radial neutron shield region<br>MM<br>Refuel   | EU1.1         Damage to a loaded canister CONFINEMENT BOUNDARY as indicated by an on-contact radiation reading on the surface of a loaded spent fuel cask > any Table E-1 dose limit         McGuire Nuclear Station Classification of Emergency FAD-MC-EP-EAL-WALLCHARTS Rev 003   |  |   | E  |

|   |  | <u><b>G</b></u> ENERAL EMERGEN   | CY   | <b>S</b> ITE  | AR   | EA EN  | IERGE  | NC)   | Y   | AL   | ER  |
|---|--|--|--|---|--|--|--|---|---|--|---|
|   | <b>1</b><br>NCS<br>Level   | CG1 Loss of NCS inventory affecting fuel clad integrity with cont<br>challenged 5 6<br>CG1.1<br>NCS water level cannot be monitored for ≥ 30 min. (N<br>AND<br>Core uncovery is indicated by any of the following:<br>- UNPLANNED increase in any Table C-6 sump of<br>level due to a loss of NCS inventory<br>- Visual observation of UNISOLABLE NCS leakag<br>- Reactor Building Refueling Bridge Monitor 1EMF<br>(2EMF3) reading > 9,000 mR/hr<br>- Erratic Source Range or Wide Range Flux Monit<br>indication<br>AND<br>Any Containment Challenge indication, Table C-1 | Note 1)<br>Note 1)<br>or tank<br>ge<br>F16<br>itor                           | CS1 Loss of N<br>capability<br>CS1.1<br>NCS water leve<br>AND<br>Core uncovery<br>- UNPLANN<br>level due t<br>- Visual obs<br>- Reactor B<br>(2EMF3) r<br>- Erratic Sol<br>indication | CS inv<br>I can<br>is ind<br>IED ir<br>o a lo<br>ervati<br>uildin<br>urce F  | not be monitore<br>icated by <b>any</b> concrease in <b>any</b><br>iss of NCS inve<br>ion of unisolabl<br>g Refueling Brid<br>g > 9000 mR/h<br>Range or Wide | Sector (Content of the following: Table C-6 sumpentory)         e NCS leakage         dge Monitor 1EN         rr (Mode 6)         Range Flux Mor | Note 1)<br>or tank<br>IF16<br>itor  | CA1 Loss of NCS inve<br>CA1.1<br>Loss of NCS inver<br>< 5 in. above hotle<br>CA1.2<br>NCS water level ca<br>AND EITHER<br>- UNPLANNED<br>level due to a<br>- Visual observa   | annot be m<br>increase in<br>loss of NC<br>ation of uni  | licated by<br>e<br>ionitored<br>n <b>any</b> Tak<br>S invento<br>isolable N |
|   | 2<br>Loss of<br>Essential<br>AC<br>Power   | Table C-1 Containment C         - CONTAINMENT CLOSURE         - Containment hydrogen cond         - UNPLANNED rise in contai         Table C-6 Sumps/Tanks   | hallenge   | ablished (Note 6)<br>n > 6%<br>essure   |  | Table C-2Offsite- ATC (Train- SATA (Train- ATD (Train- SATB (Train- SATB (Train  | AC Power Sour<br>n A)<br>n A)<br>n B)<br>ain B)  | ces   | CA2 Loss of all offsite<br>minutes or longer<br>CA2.1<br>Loss of all offsite a<br>essential 4160V bu<br>(Note 1)  | and <b>all</b> onsite<br>and <b>all</b> onsi<br>uses 1(2)E <sup>-</sup>  | e AC powe   |
| <ul> <li>Cold SD/<br/>Refuel<br/>System<br/>Malfunct.</li> <li>NCDT</li> <li>PRT</li> <li>CFAE sump</li> <li>ND/NS sum</li> <li>RHT</li> <li>WDT</li> <li>WEFT</li> <li>SRST</li> </ul> |  | - NCDT<br>- PRT<br>- CFAE sump<br>- ND/NS sump<br>- RHT<br>- WDT<br>- WEFT<br>- SRST   | Table C-3       N         NCS Status       Intact (but not reduce inventory) |   | - D/G 1(2) A (Train A) - D/G 1(2) B (Train B)  C-3 NCS Heat-up Duration Thresholds atus Containment Closure Status Duration t reduced N/A 60 min.* |  |  | CA3 Inability to mainta<br>CA3.1<br>UNPLANNED incre<br>> Table C-3 duration<br>OR<br>UNPLANNED NCS<br>of NCS cooling (the<br>conditions)  | ain plant in co<br>ease in NC<br>on (Notes 1<br>S pressure<br>is does <b>no</b> t   | S tempe<br>,9)<br>increase<br>t apply du   |   |
|   | <b>4</b><br>Loss of<br>Vital DC<br>Power   | None   | Not in<br>OR<br>At red<br>* If ar<br>NC                                      | n NCS heat removal sys<br>s temperature is being r  | e<br>not<br>tem is i<br>educed   | stablished<br>t established<br>in operation within th<br>I, the EAL is <b>not</b> app  | 0 min.<br>0 min.<br>Dis time frame and<br>Dicable  | F   | Table C-4       Contract of the second | <mark>Communic</mark>  | Consite   |
|   | <b>5</b><br>Loss of<br>Comm.   | None   |  |   |  | None   |  | DEMNET<br>Offsite Radio System<br>Commercial Telephone<br>NRC Emergency<br>Telecommunications Sy  |   | em (ETS)   |   |
|   | A       B       Hazardous       Event       Affecting       Safety       Systems |  | - Se<br>- Int<br>- Hiq<br>- FIF<br>- EX<br>- Ot<br>ch<br>Sh                  | Table<br>ismic<br>ernal<br>gh wir<br>₹E<br>.PLO<br>ther ev<br>aracte<br>ift Ma  | C-5 Hazardou<br>event (earthqu<br>or external FLC<br>nds or tornado a<br>SION<br>vents with simil<br>eristics as deter<br>anager                   | <b>Is Events</b><br>Iake)<br>DODING event<br>strike<br>ar hazard<br>rmined by the  |  | CA6 Hazardous event<br>current operating<br>CA6.1<br>The occurrence of<br>AND<br>- Event damage<br>performance of<br>needed for the<br>AND EITHER on<br>- Event damage<br>performance to<br>SYSTEM need<br>- Event damage<br>the second tra<br>for the current<br>(Note 11, 12) | affecting a Samode<br>mode<br>any Table (<br>has cause<br>on one trair<br>current op<br>e of the fol<br>has cause<br>o a seconc<br>ded for the<br>has result<br>in of the S<br>coperating   | AFETY SY<br>C-5 haza<br>ed indicat<br>n of a SA<br>perating r<br>llowing:<br>ed indicat<br>d train of t<br>current of<br>ted in VIS<br>AFETY S<br>mode |   |

## NOTES Note 1: The Emergency Coordinator should declare the event promptly upon determining that time limit has been exceeded, or will likely be exceeded. Note 2: If an ongoing release is detected and the release start time is unknown, assume that the release duration has exceeded the specified time limit. **Note 3**: If the effluent flow past an effluent monitor is known to have stopped, indicating that the release path is isolated, the effluent monitor reading is no longer VALID for classification purposes. Note 4: The pre-calculated effluent monitor values presented in EALs RA1.1, RS1.1 and RG1.1 should be used for emergency classification assessments until the results from a dose assessment using actual meteorology are available. **Note 5**: If the equipment in the listed room or area was already inoperable or out-of-service before the event occurred, then no emergency classification is warranted. Note 6: If CONTAINMENT CLOSURE is re-established prior to exceeding the 30-minute time limit, declaration of a General Emergency is not required. Note 7: This EAL does not apply to routine traffic impediments such as fog, snow, ice, or vehicle breakdowns or accidents. **Note 8**: A manual trip action is any operator action, or set of actions, which causes the control rods to be rapidly inserted into the core, and **does not** include manually driving in control rods or implementation of boron injection strategies. Note 9: In the absence of reliable NCS temperature indication caused by the loss of decay heat removal capability, classification should be based on the NCS pressure increase criteria when in Mode 5 or based on time to boil data when in Mode 6. **Note 10**: If the loss of containment cooling threshold is exceeded due to loss of both trains of VX-CARF, this EAL only applies if at least one train of VX-CARF is not operating, per design, after the 10 minute actuation delay for greater than or equal to 15 minutes. **Note 11**: If the affected SAFETY SYSTEM was already inoperable or out of service before the hazardous event occurred, then this emergency classification is not warranted. **Note 12**: If the hazardous event only resulted in VISIBLE DAMAGE, with no indications of degraded performance to at least one train of a SAFETY SYTSEM, then this emergency classification is not warranted.

Category (R, H, E, C, S, F)

## EAL - COLDMODES 5, 6 & No Mode

|   | UNUSUAL EVENT  |
|---|--|
|   | CU1 UNPLANNED loss of NCS inventory for 15 minutes or longer   |
| 5 6   | CU1 1  |
| NCS water level   | UNPLANNED loss of reactor coolant results in NCS water level less than a required lower limit for $\geq$ 15 min. (Note 1)  |
| or ≥ 15 min. (Note 1)<br>le C-6 sump or tank<br>ry<br>CS leakage                | <ul> <li>CU1.2</li> <li>NCS water level cannot be monitored</li> <li>AND EITHER</li> <li>UNPLANNED increase in any Table C-6 sump or tank level due to a loss of NCS inventory</li> <li>Visual observation of unisolable NCS leakage</li> </ul>  |
| to essential buses for 15   | CU2 Loss of all but one AC power source to essential buses for 15<br>minutes or longer   |
| 5 6 NM  | 5 6 NM   |
| ver capability to<br>2)ETB for ≥ 15 min.  | <ul> <li>CU2.1</li> <li>AC power capability, Table C-2, to essential 4160V buses 1(2)ETA and 1(2)ETB reduced to a single power source for ≥ 15 min. (Note 1)</li> <li>AND</li> <li>Any additional single power source failure will result in loss of all AC power to SAFETY SYSTEMS</li> </ul> |
| n   | CU3 UNPLANNED increase in NCS temperature  |
| 5 6   | 5 6  |
| ature to > 200°F for<br>> 20 psig due to a loss<br>ring water-solid plant       | <ul> <li>CU3.1</li> <li>UNPLANNED increase in NCS temperature to &gt; 200°F due to loss of decay heat removal capability</li> <li>CU3.2</li> <li>Loss of all NCS temperature and NCS level indication for ≥ 15 min. (Note 1)</li> </ul>  |
| hods  | CU4 Loss of Vital DC power for 15 minutes or longer  |
| ORO NRC   | 5 6  |
|   | <pre>CU4.1 &lt; 105 VDC bus voltage indications on Technical Specification required 125 VDC buses for ≥ 15 min. (Note 1)</pre>   |
| X   | CU5 Loss of <b>all</b> onsite or offsite communications capabilities   |
| X X<br>X X<br>X   | CU5.1         Loss of all Table C-4 onsite communication methods         OR         Loss of all Table C-4 ORO communication methods         OR         Loss of all Table C-4 NRC communication methods   |
|   |  |
| 5     6       dous event       ons of degraded                                  | None   |
| ons of degraded<br>ne SAFETY<br>perating mode.<br>BLE DAMAGE to<br>YSTEM needed |  |







Sequential number within subcategory/classification Emergency classification (G, S, A, U) \_\_\_\_\_ Subcategory number (1 if no subcategory)

