

BWR OWNERS' GROUP

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BWROG-99072
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Secretary
U.S. Nuclear Regulatory Commission
Washington, DC

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PROPOSED RULE **PR** 50+72
(64FR36291)

Attention: Rulemaking and Adjudication Staff

Subject: **Federal Register Volume 64, Number 128, dated July 6, 1999,
Proposed Rule for Reporting Requirements for Nuclear Power
Reactors**

The purpose of this letter is to transmit Boiling Water Reactor Owners' Group (BWROG) comments on the proposed rule for Reporting Requirements for Nuclear Power Plants. The Boiling Water Reactor Owners' Group (BWROG) appreciates the NRC effort to resolve comments on this proposed rule. In general the proposed rule is an improvement over the current regulation, however there are some areas where further clarification of detail is needed. Clarification will minimize future regulatory issues with interpretation and ensure regulatory burden is commensurate with the safety significance of reported events.

The BWROG Licensee Event Reporting (LER) Committee has reviewed the proposed rule and the Draft revision of NUREG 1022. The committee has found the proposed rule to be more useable and less burdensome than the previous rule. The committee endorses the concept of revising both the rule and the NUREG concurrently. This will facilitate a more comprehensive understanding of the changes and their impact.

The BWROG seeks a clear and unambiguous guidance document that will reduce the regulatory interpretation issues associated with reporting events. If needed, the BWROG supports delaying the issuance of the final rule to accommodate an additional workshop. As discussed with Dennis Allison of the staff at the public meeting on August 3, 1999, the BWROG LER Committee is ready to support an additional meeting or workshop in order to better define examples for inclusion in NUREG 1022.

Specifically, in response to the Federal Register Notice, the LER committee provides comments enclosed as Attachment 1. In addition to these comments, the committee has identified specific comments on individual sections and paragraphs. These are included as Attachment 2 to this letter.

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If you have any questions, please contact Lonnie Daughtery, Entergy, (601-437-2334) or the undersigned.

Very truly yours,



W. Glenn Warren, Chairman
BWR Owners' Group

cc: RM Pulsifer, NRC
BWROG Licensee Event Reporting Committee
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JM Kenny, BWROG Vice Chairman
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Attachment 1

This Attachment provides BWROG feedback in several areas as requested in the Federal Register Notice.

First was the request to discuss the proposed reporting times and the need for additional levels. In response to this request the committee recommends that only three levels be utilized. This will minimize operator burden and will facilitate implementation upon issuance of the final rule. Additionally, we think these levels better define the significance of the initial report and will aid the NRC in responding to events in the future.

Secondly public comment was sought concerning the proposal to require reporting of actuations of a prescribed list of systems. Of the options listed in the notice, the committee recommends selecting option (3) return to the pre-1998 situation. This option with the exclusions currently allowed would be the easiest and most straightforward option for implementation.

Public comment was also sought concerning reporting of historical problems. The committee recommends that historical look backs be limited to two years or one operating cycle whichever is shortest. This will enhance the importance of reported events to other utilities while minimizing the burden to the utility making the report. The committee supports adding this limitation to all criteria which requires a review of historical data.

Finally the notice sought public comment on the reporting of component problems. The committee has reviewed this criteria and strongly recommends that it be deleted from the final rule. This criteria reinserts ambiguity and interpretation problems, lowers the significance level of the reporting criteria, adds a tremendous amount of burden back on the licensees and is redundant in many ways to other reporting mechanisms and criteria.

ATTACHMENT 2

Specific comments on 10 CFR 50.72

SECTION/PROPOSED WORDING	RECOMMENDED WORDING/COMMENTS
<p>50.72(a)(4) The licensee shall activate the Emergency Response Data System (ERDS)⁵ as soon as possible but not later than one hour after declaring an emergency class of alert, site area emergency, or general emergency. The ERDS may also be activated by the licensee during emergency drills or exercises if the licensee's computer system has the capability to transmit the exercise data.</p>	<p>50.72(a)(4) The licensee shall activate the Emergency Response Data System (ERDS)⁵ as soon as possible but not later than one hour after declaring an emergency class of alert, site area emergency, or general emergency. The ERDS may also be activated by the licensee during emergency drills or exercises if the licensee's computer system has the capability to transmit the exercise data.</p> <p><i>This last sentence should be deleted. It is superfluous information that adds no value to the discussion of reportability.</i></p>
<p>50.72(b)(2)(ii)(B) The nuclear power plant being in an unanalyzed condition that significantly affects plant safety.</p>	<p>50.72(b)(2)(ii)(B) The nuclear power plant being in an unanalyzed condition that significantly affects <u>degrades</u> plant safety.</p> <p><i>The phrase "significantly affects plant safety" has no positive or negative connotation. It is therefore recommended that the term degrades be substituted in place of affects. In addition, a lower case editorial change should be made.</i></p>
<p>50.72(b)(2)(v) Licensees shall report: "Any event or condition that at the time of discovery could have prevented the fulfillment of the safety function of structures or systems that are needed to:..."</p>	<p>50.72(b)(2)(v) Licensees shall report: "Any event or condition that at the time of discovery <u>is</u> could have prevented the ability to fulfill the safety function of structures or systems that are needed to:..."</p> <p><i>Editorial change to reflect the correct tense of the existence of an event or condition, rather than past speculation.</i></p>

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Specific comments on 10 CFR 50.73

SECTION/PROPOSED WORDING	RECOMMENDED WORDING/COMMENTS
<p>50.73(a)(2)(i)(B) Any operation or condition occurring within three years of the date of discovery which was prohibited by the plant's Technical Specifications, except when:</p> <ul style="list-style-type: none"> (i) The technical specification is administrative in nature; or (ii) The event consists solely of a case of a late surveillance test where the oversight is corrected, the test is performed, and the equipment is found to be capable of performing its specified safety functions. 	<p>50.73(a)(2)(i)(B) Any operation or condition occurring within two years of the date of discovery which was prohibited by the plant's <u>current</u> Technical Specifications, except when:</p> <ul style="list-style-type: none"> (i) The technical specification is administrative in nature; or (ii) The event consists solely of a case of a late surveillance test where the oversight is corrected, the test is performed, and the equipment is found to be capable of performing its specified safety functions; or (iii) A previously existing condition does not comply with a newly implemented more restrictive specification. <p><i>As previously stated, we believe that two years is the appropriate time period for reporting historical events.</i></p> <p><i>The addition of "current" allows for plants that have recently converted to Improved Standard Technical Specifications to apply the current requirements to the identified condition rather than considering Technical Specifications which are no longer applicable.</i></p> <p><i>"Safety function" should be singular to accommodate equipment with only one safety function.</i></p> <p><i>The third provision eliminates the need for a utility to do an unnecessary historical search for conditions that complied with a previous Technical Specification, but do not comply with a newly implemented, more restrictive Technical Specification.</i></p>

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<p>50.73(a)(2)(ii)(B) The nuclear power plant being in (A) an unanalyzed condition that significantly affected plant safety</p>	<p>50.73(a)(2)(ii)(B) The nuclear power plant being in (A) an unanalyzed condition that significantly <u>affected degraded</u> plant safety.</p> <p><i>The phrase “significantly affected plant safety” has no positive or negative connotation. It is therefore recommended that the term degraded be substituted in place of affected. In addition, (A) should be deleted as a minor editorial change.</i></p>
<p>50.73(a)(2)(ii)(C) A component being in a degraded or non-conforming condition such that the ability of the component to perform its specified safety function is significantly degraded and the condition could reasonably be expected to affect other similar components in the plant.</p>	<p>50.73(a)(2)(ii)(C) A component being in a degraded or non-conforming condition such that the ability of the component to perform its specified safety function is significantly degraded and the condition could reasonably be expected to affect other similar components in the plant.</p> <p><i>stated, we believe that this new criterion should be deleted.</i></p>
<p>50.73(a)(2)(v) Licensees shall report: “Any event or condition occurring within three years of the date of discovery that could have prevented the fulfillment of the safety function of structures or systems that are needed to:...”</p>	<p>50.73(a)(2)(v) Licensees shall report: “Any event or condition occurring within two years of the date of discovery that <u>could would</u> have prevented the fulfillment of the safety function of structures or systems that are needed to:...”</p> <p><i>As previously stated, we believe that two years is the appropriate time period for reporting historical events.</i></p> <p><i>Editorial change to reflect the existence of an event or condition, rather than past speculation.</i></p>

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<p>50.73(a)(2)(ix)(J) For each human performance related problem that contributed to the event, the licensee shall discuss</p>	<p>50.73(a)(2)(ix)(J) For each personnel error human performance related problem that contributed to the event, the licensee shall discuss</p> <p><i>The shift from "personnel error" and the implied "root cause" to "human performance related problem" and "contributing factors" greatly increases the scope of investigation and burden to the licensee. It is only appropriate to require discussion of personnel error root causes.</i></p>
<p>50.73(a)(3)(ii) are included in emergency or operating procedures and could have been used to recover from the event in case of an additional failure in the systems actually used for recovery.</p>	<p>50.73(a)(3)(ii) are included in emergency or operating procedures and could have been used to recover from the event in case of an additional failure in the systems actually used for recovery.</p> <p><i>We recommend that this new criterion be deleted. Emergency operating procedures provide direction for use of many plant systems. If an additional failure must be postulated for every event, multiple systems would be required to be included in the LER for each safety function. For example, if the reactor scrammed due to personnel error and feedwater was used to recover from the event, an additional failure of loss of offsite power would require alternate injection methods that could include service water and fire water even though they are systems of last resort.</i></p> <p><i>This rule change would result in a large amount of additional information that would be of minimal use. The assessment of the safety consequences and implications of the event would become cluttered with hypothetical additional failures and possible plant responses.</i></p>

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Specific comments on NUREG 1022, Revision 2 (draft)

SECTION/PROPOSED WORDING	RECOMMENDED WORDING/COMMENTS
<p style="text-align: center;">Abbreviations</p>	<p><i>HPCS- High Pressure Core Spray</i> <i>LPCI- Low Pressure Core Injection</i> <i>and</i> <i>LPCS- Low Pressure Core Spray should be added to the list of abbreviations</i></p> <p><i>NPRDS and SALP should be deleted since they are no longer used and are not referenced in the NUREG.</i></p>
<p>Section 2.5, Time Limits for Reporting For example, if a technician sees a problem, but a delay occurs before an engineer or supervisor has a chance to review the situation, the discovery date (which starts the 30-day clock) is the date that the technician sees a problem.</p>	<p>For example, if a technician sees a problem, but a delay occurs before an engineer or supervisor has a chance to review the situation, the discovery date (which starts the 6030-day clock) is the date that the technician sees a problem.</p> <p><i>Change is needed to align written guidance with the proposed change to required LER submission times.</i></p>
<p>Section 3.2.1, Plant shutdown required by TS If the shutdown is completed, licensees are required to submit an LER within 30 days.</p>	<p>If the shutdown is completed, licensees are required to submit an LER within 6030 days.</p> <p><i>Change is needed to align written guidance with the proposed change to required LER submission times.</i></p>

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<p>Section 3.2.2, Technical Specification Prohibited Operation or Condition, TS Surveillance Requirements Discussion Otherwise, the deficiency should be assumed to have occurred halfway between the last successful test or use and the untimely test that revealed the deficiency.</p>	<p><i>It is recommended that this sentence be deleted since this statement appears to contain no basis. The deficiency should be assumed to have occurred at the time of discovery (as is the current practice) unless firm evidence exists to the contrary. At the very least, it should be assumed that the deficiency occurred at the time that the late surveillance was due.</i></p>
<p>Section 3.2.2, Technical Specification Prohibited Operation or Condition, Entry into STS 3.0.3 Discussion STS 3.0.3 (ISTS LCO 3.0.3), or its equivalent, establishes requirements for actions when an LCO is not met and no action statement is provided. Entry into STS 3.0.3 is considered to indicate that a condition existed longer than allowed by TS. Thus, entry into STS 3.0.3 (ISTS LCO 3.0.3) for any reason or justification is reportable.</p>	<p>STS 3.0.3 (ISTS LCO 3.0.3), or its equivalent establishes requirements for actions when: (1) an LCO is not met and the associated ACTIONS are not met, (2) an associated ACTION is not provided, <u>or</u> (3) as directed by the associated ACTIONS themselves. Entry into STS 3.0.3 (ISTS LCO 3.0.3) for either of the first two above reasons are generally reportable under this criterion. However, when the plant TS specify the entry into 3.0.3 as the required ACTION and that action and its completion time are met, the event is not reportable under this criterion. Also, momentary (less than approximately 5 minutes) entries into TS 3.0.3 regardless of the reason, are not reportable under this criterion. Any TS 3.0.3 entry involving actual plant shutdown should be reviewed for reporting under 50.72(b)(1)(i)(A) and 50.73(a)(2)(i)(A) for a plant shutdown required by TS.</p> <p><i>The proposed wording is suggested to replace the existing outdated guidance. The proposed wording reflects the current operating philosophy associated with implementation of the Standard Technical Specifications.</i></p>

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<p>Section 3.2.2, Technical Specification Prohibited Operation or Condition, Missed Tests Required by ASME Section XI Discussion Sections 50.55a(g) and 50.55a(f) require the implementation of ISI and IST programs in accordance with the applicable edition of the ASME Code for those pumps and valves whose function is required for safety. STS Section 4.0.5 (or an equivalent) covers these testing requirements. (Generally, there is no comparable ISTS section.) A missed...</p>	<p>Sections 50.55a(g) and 50.55a(f) require the implementation of ISI and IST programs in accordance with the applicable edition of the ASME Code for those pumps and valves whose function is required for safety. STS Section 4.0.5 (or an equivalent) covers these testing requirements. (Generally, there is no comparable ISTS section.) A missed...</p> <p><i>This statement should be deleted since ISTS Section 5, "Programs and Manuals," has a section for these requirements in "Inservice Testing Program".</i></p>
<p>Section 3.2.2, Technical Specification Prohibited Operation or Condition, Fire Protection Systems When Required by TS Discussion Also, if a fire protection deficiency results in the inability to preserve a safe shutdown train in the event of a fire, it should be reported as an unanalyzed condition that significantly affects plant safety, as discussed in Section 3.2.4 of this report.</p>	<p>Also, if a fire protection deficiency results in the inability to preserve <u>at least one</u> safe shutdown train in the event of a fire, it should be reported <u>evaluated for reporting</u> as an unanalyzed condition that significantly affects plant safety, as discussed in Section 3.2.4 of this report.</p> <p><i>The guidance should be modified to indicate the need to evaluate for reporting, rather than indicate that reporting is definitely required since other trains or systems may be available to preserve safe shutdown.</i></p>

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<p>Section 3.2.2, Example (3) Entering STS 3.0.3 (3) Entering STS 3.0.3</p> <p>With essential water chillers (A) and (B) out of service, the only remaining operable chiller (A/B) tripped. This condition caused the plant to enter STS 3.0.3 (equivalent to ISTS LCO 3.0.3) for 1 hour, until chiller (A) was restored to service and the temperature was restored to within TS limits.</p> <p>An LER is required for this event because STS 3.0.3 was entered</p>	<p>(3) Entering STS 3.0.3 due to lack of specific TS actions</p> <p>With essential water chillers (A) and (B) out of service, the only remaining operable chiller (A/B) tripped. This condition caused the plant to enter STS 3.0.3 (equivalent to ISTS LCO 3.0.3) for 1 hour, until chiller (A) was restored to service and the temperature was restored to within TS limits.</p> <p>An LER is required for this event because, STS 3.0.3 was entered in this case, there were no actions provided in the plant TS for that condition and STS 3.0.3 was entered for 1 hour.</p> <p><i>The proposed wording reflects the current operating philosophy associated with implementation of the Standard Technical Specifications. An additional example is also included to clarify this position:</i></p> <p>Entry into STS 3.0.3 when the plant TS specify 3.0.3 entry</p> <p>During a surveillance test on the A train of a two-train Standby Gas Treatment (SBGT) system, a condition was discovered on the B train that rendered it inoperable. The test was halted and steps taken to return the A train to a standby readiness condition. During the restoration, switch manipulations momentarily rendered the A train inoperable. With both trains inoperable, the plant TS specify immediate entry into LCO 3.0.3. The entry into LCO 3.0.3 was logged and then exited within 1 minute once switch manipulation on the A train was completed.</p> <p>This event is not reportable under this criterion because all the actions specified by the plant TS were completed within the</p>
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	<p>required completion times. There was no operation or condition prohibited by TS. Also, momentary entries into STS 3.0.3 are not reportable.</p>
<p>Section 3.2.2, Example (5) Seismic Restraints Assume that during an NRC evaluation it is found that an exciter panel for one EDG had lacked appropriate seismic restraints since the plant was constructed, because of a design, analysis or construction inadequacy. Also assume that, upon evaluation, there is reasonable doubt about the EDG's ability to perform its specified safety functions during and after an SSE.</p>	<p>Assume that during an NRC evaluation it It is found that an exciter panel for one EDG had lacked appropriate seismic restraints since the plant was constructed, because of a design, analysis or construction inadequacy. Also assume that, u Upon evaluation, <u>the EDG is determined to be inoperable</u> there is reasonable doubt about the EDG's ability to perform its specified safety functions during and after an SSE.</p> <p><i>The recommended wording deletes superfluous information and equates the ability to perform a specified safety function to operability.</i></p>
<p>Section 3.2.2, Example (6) Vulnerability to Loss of Offsite Power Assume that during a design review it is found that a loss of offsite power could cause a loss of instrument air and, as a result, auxiliary feedwater (AFW) flow control valves could fail open. Then for low steam generator pressure, such as could occur for certain main steam line breaks, high AFW flow rates could result in tripping the motor driven AFW pumps on thermal overload. The single turbine driven AFW pump would not be affected.</p>	<p>Assume that d During a design review it is found that a loss of offsite power could cause a loss of instrument air and, as a result, auxiliary feedwater (AFW) flow control valves could fail open. Then for low steam generator pressure, such as could occur for certain main steam line breaks, high AFW flow rates could result in tripping the motor driven AFW pumps on thermal overload <u>and were therefore declared inoperable</u>. The single turbine driven AFW pump would not be affected.</p> <p><i>The recommended wording deletes superfluous information clearly indicates that the equipment is determined to be inoperable (for a time greater than allowed by Technical Specifications).</i></p>

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<p>Section 3.2.4, Degraded Condition, Example (1) following the end of cycle shutdown,...</p> <p>The event is reportable because the cladding failures exceed expected values, are unique or widespread, and are caused by unexpected factors.</p>	<p>Following the end of cycle shutdown,...</p> <p>The event is reportable because the cladding failures exceed expected values <u>and</u>, are unique or widespread, and are caused by unexpected factors.</p> <p><i>Minor editorial change (capitalization). Whether the factors are unexpected or not, are not relevant to reporting.</i></p>
<p>Section 3.2.4, Degraded Condition, Example (2) The event is reportable because the degradation cannot be considered acceptable as-is.</p>	<p>The event is reportable because the degradation cannot be considered acceptable as-is <u>of the generic implications.</u></p> <p><i>Many conditions identified by the licensee are not acceptable as-is. It is therefore more appropriate to indicate that the event is reportable due to the generic implications.</i></p>
<p>Section 3.2.5, External Threat to Plant Safety, Examples (2) and (3) (2) Hurricane A licensee in southern Florida declared an Unusual Event after a hurricane warning was issued by the... (3) Fire With the unit at 100-percent power, the control room was notified that a forest fire was burning....</p>	<p><i>It is proposed that these examples be deleted. The licensee was required to make a report due to entry into the Emergency Plan making reporting under this category unnecessary.</i></p>

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<p>Section 3.2.7, Event or Condition That Could Prevent Fulfillment of a Safety Function, Discussion ...regardless of whether the system was needed at the time.</p>	<p>...regardless of whether the system was needed at the time <u>of discovery</u>. <i>Addition is needed to be consistent with the narrative in the next paragraph.</i></p>
<p>Section 3.2.7, Event or Condition That Could Prevent Fulfillment of a Safety Function, Discussion The staff believes that the conditions necessary to consider the redundant train operable and available, for this purpose, should include the following:</p> <ul style="list-style-type: none"> • in cases where the redundant train should operate automatically, it is capable of timely and correct automatic operation, or in cases where the redundant train should be operated manually, the operators would detect the need for its operation and initiate such operation, using established procedures for which they are trained, within the needed time frame, without the need for troubleshooting and repair, and; • the redundant train is capable of performing its safety function for the duration required, and; there is not a reasonable expectation of preventing fulfillment of the safety function by the redundant train 	<p><i>This portion of the discussion should be deleted. Operability determinations are performed by the licensee using Generic letters 91-18 and 91-18 Rev. 1. It is inappropriate to include operability determination guidance in this reportability guideline.</i></p>

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<p>Section 3.2.7, Event or Condition That Could Prevent Fulfillment of a Safety Function, Example (2) If the plant's safety analysis considered RCIC as a system needed to mitigate a rod ejection accident (e.g., it is included in the Technical Specifications) then its failure is reportable under this criterion; otherwise, it is not reportable under this section of the rule.</p>	<p><u>No, a RCIC failure is not reportable. RCIC is included in ISTS because it meets criterion 4 of 10CFR50.36 based on its contribution to the reduction of overall plant risk. RCIC is not credited in the plant's safety analysis.</u> If the plant's safety analysis considered RCIC as a system needed to mitigate a rod ejection accident (e.g., it is included in the Technical Specifications) then its failure is reportable under this criterion; otherwise, it is not reportable under this section of the rule.</p> <p><i>This clarification will correct problems associated with RCIC being included in TS, but not credited in a plants safety analysis.</i></p>
<p>Section 3.2.7, Event or Condition That Could Prevent Fulfillment of a Safety Function, Example (13) The independent failure (e.g., excessive set point drift) of a single pressure switch is not reportable unless it alone could have caused a system to fail to fulfill its safety function, or is indicative of a generic problem that could have resulted in the failure of more than one switch and thereby cause one or more systems to fail to fulfill their safety function.</p>	<p>The independent failure (e.g., excessive set point drift) of a single pressure switch is not reportable unless it alone could <u>would</u> have caused a system to fail to fulfill its safety function, or is indicative of a generic problem that could have resulted in the failure of more than one switch and thereby cause one or more systems to fail to fulfill their safety function.</p> <p><i>Wording change is required to coincide with the proposed wording change of the rule (i.e. deleting "alone" and replacing "could" with "would").</i></p>
<p>Section 3.2.7, Event or Condition That Could Prevent Fulfillment of a Safety Function, Example (17) ...event or condition that alone could prevent fulfillment of a safety function). (This reporting criterion is discussed in Section 3.3.3 of this report.)</p>	<p>...event or condition that alone could prevent fulfillment of a safety function). (This reporting criterion is discussed in Section 3.3.3 of this report.)</p> <p><i>This line which refers to section 3.3.3 should be deleted. This section no longer exists in NUREG 1022.</i></p>

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<p>Section 3.2.7, Event or Condition That Could Prevent Fulfillment of a Safety Function, Examples (17), (18), (19) and (20)</p>	<p><i>Examples (17), (18), (19) and (20) should be renumbered as (18), (19), (20) and (21) due to the duplication of example (17).</i></p>
<p>Section 3.2.11, Contaminated Person Requiring Transport Offsite, Example (1) A contract worker experienced a back injury lifting a tool while working in the reactor containment and was considered potentially contaminated because his back could not be surveyed.</p>	<p>A contract worker experienced a back injury lifting a tool while working in <u>a contaminated area</u> the reactor containment and was considered potentially contaminated because his back could not be surveyed.</p> <p><i>The example should be changed such that the employee was working in a contaminated area. In the given example it is possible that the employee was working in a radiologically controlled area that was not contaminated. It could therefore be assumed that the worker was not contaminated, eliminating the need to make a report.</i></p>
<p>5.2.1(1), Narrative Description or Text (NRC Form 366A, Item 17) For equipment that was inoperable at the start of the event, provide an estimate of the time the equipment became inoperable and the last time the equipment was known to be operable. Indicate the basis for this conclusion (e.g., a test was successfully run or the equipment was operating). For equipment that failed, provide the failure time and the last time the equipment was known to be operable. Also provide the basis for the last time known operable.</p>	<p>For equipment that was inoperable at the start of the event, provide an estimate of the time the equipment became inoperable and the last time the equipment was known to be operable. Indicate the basis for this conclusion (e.g., a test was successfully run or the equipment was operating). For equipment that failed, provide the failure time and the last time the equipment was known to be operable. Also provide the basis for the last time known operable.</p> <p><i>Deletion of the last time equipment was known to be operable is necessary to conform with ISTS philosophy of equipment being operable since the last performance of the surveillance test (unless firm evidence exists to the contrary).</i></p>

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