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U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Subject: Duke Power Company
NUREG 1022, Revision 1 Comments
Event Reporting Systems 10 CFR 50.72/73

Gentlemen:

Please find attached our comments to Revision 1 of NUREG 1022, Event Reporting Systems 10 CFR 50.72 and 50.73, Clarification of NRC Systems and Guidelines for Reporting.

A 1990 regulatory impact survey on the effect of NRC regulation on nuclear power plant activities and subsequent event reporting workshops indicated a need for further guidance on the two reporting rules. Experience has shown that the threshold of reporting has not been consistently implemented and some problems exist with the interpretation of the guidelines and definitions. The proposed revision to NUREG 1022 introduces further confusion into the determination of reportability by drastically changing guidance previously given and used by the industry, which is contrary to the originally desired resulting product from the survey.

The purpose of the reporting guidance should be to assure (potentially) safety significant events are effectively and consistently reported by the industry within the regulatory limits defined in the reporting rulemaking prescribed by law. Both the industry and the NRC should take credit for the reduced number of reportable events (Licensee Event Reports, LERs) since 1989, as evidenced by improved performance and reduction of significant accident precursors. Duke Power is concerned that NUREG 1022, Revision 1 substantially lowers the threshold of reporting events. The reduced threshold of reporting in many cases is inconsistent with the statements of consideration for 10 CFR 50.72/73 in that events that previously lacked the significance required by the rule would now require reporting. These reporting changes have not been supported by appropriate backfit analyses pursuant to 10 CFR 50.109.

A review of events and problem reports was performed at one of our stations to determine the impact of the draft reporting guidance, and results showed an estimated increase in 1 hour red phone notifications of 50/yr., an increase in total red phone calls of 70/yr., and an increase

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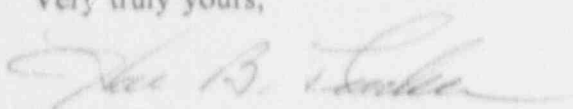
in LERs of over 80/yr. or 200%.

With a significant increase in the number of 50.72 notifications, along with the increased level of detail now recommended in Section 4.3 of the proposed revision to NUREG 1022, an increase in the amount of time will be required of plant operators for reporting and away from attending to the plant's event. This is in contradiction to the statement on page 1 of the draft involving operational safety concern versus reporting. The increase in LERs is not only economic, but, that the amount of attention necessary for truly safety significant problems may now become diluted by an addition of less significant events to the process. An overall reduction in the quality and level of detail of the process may be the undesired result. Also, a sudden increase in the number of LERs would send an inaccurate message to the public that there could be a major problem in the industry.

Duke Power endorses the positions and those comments submitted by NUMARC and the BWR Owners' Group LER/JCO Committee on this issue.

Please consider our comments and concerns on the proposed revision to NUREG 1022 and direct questions on this subject to David V. Ethington (704) 373-2025.

Very truly yours,



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1022cl/
Attachment

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NUREG 1022, REVISION 1 COMMENTS

10 CFR 50.72/73 REPORTING CRITERIA

SECTION 2: REPORTING AREAS WARRANTING SPECIAL MENTION

NUREG: [p16,s2.4,1st p]

Reportability judgments for each potentially reportable item of such reviews should be made in a timeframe that is commensurate with the possible safety significance of the item.

COMMENT:

"Reportability judgments..." should be changed to "Operability judgments...". Reporting is based on the results of the operability determination when performing design reviews.

NUREG: [p16,s2.4,3rd p]

The discovery date for deficiencies identified in a design review is the time when it is determined that a condition exists that is reportable.

COMMENT:

The "discovery date" for deficiencies identified in a design review should not begin until station management is aware of the condition and concurs with the operability determination. Most engineering groups performing reviews of this type are not located on site and are not considered the "Licensee". Only the Licensee can make the required reportability determination.

NUREG: [p18,s2.7,3rd p]

The proper interpretation is to assume that such multiple failures or inoperabilities concurrently existed (particularly because of the short interval between each test) and are therefore reportable.

COMMENT:

This interpretation is in direct conflict with the philosophy of considering a component inoperable at time of discovery during a surveillance, unless firm evidence exists to the contrary (See NRC statement p35).

NUREG 1022, REVISION 1 COMMENTS

SECTION 3: SPECIFIC REPORTING GUIDELINES

3.2.2 - Condition Prohibited by Tech Specs

NUREG: [p35,s3.2.2(3)]

If the surveillance interval plus the allowable time extensions for conducting a surveillance are exceeded, the event is reportable even though the surveillance is subsequently satisfactorily performed.

COMMENT:

For a missed surveillance, the event should not be reported unless the surveillance interval + allowable time extension (25%) + LCO Action for the inoperable system is exceeded. Per Tech Spec 4.0.3, surveillances do not have to be performed on inoperable trains/systems. Once surveillance interval + ext. is exceeded, system/train is inoperable per TS 4.0.3, but not yet reportable because the plant is not in a "condition prohibited by Tech Specs" (i.e. the LCO Action is being met).

NUREG: [p36,s3.2.2(5) & p38,s3.2.2 Ex.4]

Administrative Requirements Required by Section 6 of the STS - If a requirement is only administrative and does not affect plant operation, then an LER is not required.

COMMENT:

Like Section 6, there are some administrative requirements located in Sections 3 & 4 of the STS that, if violated, would not affect the operation of the plant and should, therefore, be addressed in this paragraph also (e.g. Time requirements for submission of Tech Spec Special Reports).

NUREG: [p36,s3.2.2(6)]

Entry into TS 3.0.3 for any reason or justification is reportable.

COMMENT:

May want to note that many TS 3.0.3 entries are as a result of 2 trains rendered inoperable from a single cause and that 50.72b2(iii) consideration should be given.

NUREG 1022, REVISION 1 COMMENTS

NUREG: [p36,s3.2.2(7)]

If an IST or ISI is not performed when required, or if ASME Section XI tests or inspections show that components fail to meet requirements, the failures are reportable when they cause the associated systems required for safety to be declared inoperable.

COMMENT:

Agree that component not meeting Sect XI should be evaluated for operability before being declared inoperable. If determined inoperable, then reportability needs to be considered. Disagree that component failure is reportable once determined inoperable. This should be treated like any other surveillance (i.e. inoperable at time of discovery unless firm evidence to the contrary. See NRC statement, p35).

NUREG: [p39,s3.2.2 Ex.5]

(i.e. ASME BPV section IX,)

COMMENT:

Section IX should be section XI. Also, same comment as p36, section 3.2.2(7).

NUREG 1022, REVISION 1 COMMENTS

3.2.4 - Operating Plant in Seriously Degraded or Unanalyzed Condition or Outside Design Basis

GENERAL COMMENT: [pgs 41 thru 45, s3.2.4, esp (1) & (3)]

The threshold for reporting under this section is far too low. The definitions of "engineering design bases" and "licensing basis" are taken from NUREG 1397, which discusses the operability and design of specific components, trains, and systems, and applied to this section out of context. As written, these paragraphs state that a single inoperable component, system, or structure places the plant outside its design basis. This is clearly not in accordance with the original rule. The "design basis of the plant" means that set of analyzed transients and accidents including assumed consequential and independent failures, contained in the latest docketed Safety Analysis Report. Acceptability of these analyses is reflected in performance of a plant's principle safety barriers. The bounds of a plant's design basis are reflected in its Technical Specification (i.e. Safety Limits). This position is further supported by Generic Letter 91-18, Technical Guidance "Operable/Operability: Ensuring the Functional Capability of a System or Component".

Therefore, to be outside the design basis of the plant, you must be outside the analyzed envelope either by having multiple systems inoperable or discovering errors in analyzed conditions which result in significant changes to the acceptance criteria for a plant's principle safety barrier(s).

As written, this section states that some loss of quality or functional capability in a single plant component places the plant in a seriously degraded condition. This, too, is not in accordance with the original rule. As noted in the statements of consideration for the original rule, paragraph 50.72b1(ii) is not intended to apply "to problems concerning single pieces of equipment."

SPECIFIC COMMENTS:

NUREG: [p45, s3.2.4(4)]

The plant is operating outside existing required operating or emergency procedures for safety related equipment [minor valve misalignments, such as local instrument root valve, are not reportable. Significant valve misalignments are reportable.]

COMMENT:

This bullet is not clear. For valve misalignments resulting in operation outside required procedures, it is not clear whether the procedures are non-existent for the resulting plant conditions, or the procedures exist but were not complied with. Also, "significant valve misalignments" is too vague and needs further clarification (i.e. significant valve misalignments could render safety system inoperable).

NUREG 1022, REVISION 1 COMMENTS

NUREG: [p46,s3.2.4 Ex.1]

Plant Being Seriously Degraded, Reportable Events:

- physical deformation to SSC that could reasonable have resulted from waterhammer...
- an inadvertent loss of a significant quantity (> 100gal) of the reactor coolant system inventory..
- a reactor trip breaker failing its trip bar lift force measurement test..

COMMENT:

The above examples are weak in that they would not necessarily put the plant in a seriously degraded condition.

NUREG: [p46,s3.2.4 Ex.1]

During surveillance test of the containment door interlock, the inner door failed open...

COMMENT:

No mention of condition of outer door. Tech Specs contain provisions and allowances for i inoperable door. Normally, tests of this type would require outer door to be closed.

NUREG: [p47,s3.2.4 Ex.1]

Degraded Reactor Head Stud: testing of a reactor head stud revealed the stud hardness was outside the FSAR requirements by 8 hardness numbers.

COMMENT:

This example is reportable only if Engineering determines studs will still not meet acceptable design stresses.

NUREG: [p47,s3.2.4 Ex.2] Plant in Unanalyzed Condition

Spills that create conditions that could affect component operability, qualification, or design life...

COMMENT:

Single component or system failure would not necessarily put "plant" as a whole in unanalyzed condition (see general comments for this section).

NUREG 1022, REVISION 1 COMMENTS

NUREG: [p47,s3.2.4 Ex.2]

Serious RCS temperature or pressure transients exceeding design or Tech Spec limits are reportable.

COMMENT:

RCS pressure/temperature transients ~~exceeding~~ TS LCO limits are often evaluated to be acceptable (e.g. PZR exceeded ~~cooling~~ temperature rate in Tech Specs over a 3 hour period). Tech Specs contain provisions ~~and actions~~ for such transients. This should not be reported as "an unanalyzed condition of the plant ~~that significantly compromises plant safety~~", if the RCS (or PZR) is determined operable by Engineering.

NUREG: [p49,s3.2.4 Ex.3]

Service Water system leaks: ~~Leakage~~ is reportable if the licensee is not in compliance with Generic Letter 90-05, the code under which the piping was designed, or the action statement in the LCO for operability of the system.

COMMENT:

If Service Water system is evaluated ~~and~~ determined to be able to perform its intended function (i.e. pass acceptable flow and ~~provide~~ adequate cooling) and therefore operable, despite noncompliance with a code or Generic Letter, the condition should not be reported under this section.

NUREG: [p49/50,3.2.4 Ex.3]

Reportable Events Examples

COMMENT:

See general comments under this section. Many of these examples are not appropriate examples for reporting under outside the plants' design basis. Many of the examples used are a degraded condition where full qualification is not confirmed for specific components or systems (i.e. a code or standard is not fully met). Unless these degraded conditions affect safety system operability ~~and~~ places the plant outside the analyzed envelope, the conditions should not be reported per this criterion.

GENERAL COMMENT for Examples in this Section:

All examples provided describe conditions determined to be reportable. To be more useful, the examples should also indicate what change in the condition would make it **not** reportable. Such a description would allow users of the guidance to understand the distinction that makes one condition reportable and another not reportable.

NUREG 1022, REVISION 1 COMMENTS

3.2.5/3.2.8 - External/Internal Threat to Plant Safety

GENERAL COMMENT: [pgs 52 - 55;64 - 69,s3.2.5/3.2.8]

It should be clarified in these sections that situations that do not "actually threaten" the safety of the plant or "significantly hamper site personnel in the performance of their duties" do not need to be reported even though station management decides to take a conservative precautionary measure such as holding additional personnel over their scheduled time off. Conservative precautionary compensatory measures should not be misconstrued as plant safety being threatened (and reported), but good management practices implemented.

SPECIFIC COMMENTS:

NUREG: [p72,s3.2.8 Ex.1] Toxic Gas Release

The plant's control room ventilation isolated when the toxic gas initiated on a valid signal. It is also reportable because of the ESF actuation.

COMMENT:

Agree event is reportable as an internal threat to the plant, but should not require reporting as an ESF Actuation. **Isolation** of the Control Room Ventilation system via a toxic gas signal (i.e. chlorine monitor) is not an Engineered Safety Feature.

NUREG 1022, REVISION 1 COMMENTS

3.3.1 - Shutdown Plant Found in Degraded or Unanalyzed Condition

GENERAL COMMENTS: [p76-79,s3.3.1]

See General Comments under section 3.2.4 involving component/system specific inoperable functions as they relate to the entire "plant" safety functions.

Also, many of this sections' examples assume that conditions that are discovered after a failed surveillance might have existed during plant operation and are therefore reportable under this section. This philosophy is not in accordance with previous guidance on this criterion and others. The discovery of a condition while shutdown during tests or surveillance, that results in the inoperability of systems, is assumed to be inoperable at the time of discovery unless firm evidence exists to the contrary (See NRC statement, p35).

SPECIFIC COMMENTS:

NUREG: [p77,3.3.1 Ex.3]

The ability of the control room emergency ventilation system to perform its design cooling function could not be confirmed under the current analytical assumptions; therefore, the plant was considered to be in an unanalyzed condition.

COMMENT:

Condition is reportable as a loss of safety system function (50.72b2(iii)); however, the condition does not necessarily put the plant in an unanalyzed condition that compromises plant safety. Not enough information is given with respect to the higher temperatures effect on safety systems necessary to mitigate the consequences of an accident previously analyzed in the FSAR. The inoperability of the Control Room Ventilation system does not, in itself, constitute the "plant" being in an unanalyzed condition that significantly compromises plant safety.

NUREG: [p78,s3.3.1 Ex.4]

Required containment integrity was lost (Hot Shutdown) as a result of a packing leak on a containment personnel airlock door lock operator equalizing valve. An ENS notification is required because the loss of containment integrity, had it existed while the reactor was in operation, would have resulted in a serious degradation of a primary safety barrier.

COMMENT:

Assuming the other airlock door was operable, this can not be considered a loss of containment integrity nor a seriously degraded barrier. Tech Specs provide allowances when 1 out of 2 airlock doors are inoperable. This example also assumes the packing leaks existed during plant operation (see general comments this section).

NUREG 1022, REVISION 1 COMMENTS

NUREG: [p78,s3.3.1 Ex.6]

A HPI exhaust check valve failed its local leak rate test, putting the combined LLRT for all valves and penetrations above their TS limit of 0.6 La. An ENS notification is required because the failure to meet the TS LLRT limit, had it been found while the reactor was in operation, would be a serious degradation of a principle safety barrier.

COMMENT:

One doesn't know if this valve or any of the other valves' condition existed during operation. See general comments this section. Also, exceeding the TS limit of 0.6 La does not necessarily mean there is a serious degradation of a principle safety barrier (e.g. The plant is still considered to be within its design basis if containment leakage is $< La$).

NUREG 1022, REVISION 1 COMMENTS

3.3.2 - Actuation of an Engineered Safety Feature or Reactor Protection System

GENERAL COMMENTS: [p80-84,s3.3.2]

ESF systems vary from station to station based on the needs to mitigate the consequences of an accident. For most plants, FSAR Chapter 6 identifies those systems. There may also be support systems to each ESF system which are not identified in this chapter. These supporting systems were not considered as ESF systems but referred to as essential auxiliary supporting (EAS) systems. Chapter 15 of the FSAR may include discussions of additional systems that are not considered ESF systems but only mentioned as an alternate means to mitigate the consequences of an accident.

The Standard Review Plan (Sect.7.3) distinguishes the differences between typical Engineered Safety Systems and Essential Auxiliary Supporting Systems. Many examples provided in this section appear to be a change in how ESF systems are defined rather than clarifying reporting requirements of ESF Actuations. Redefining Licensee's current definition of ESF systems through this NUREG (instead of a Rule change) will undoubtedly lead to further confusion to plant personnel.

NUREG: [p82,s3.3.2]

Table 2, Typical ESF Systems

COMMENT:

This table serves no useful purpose to the user of this guidance and will probably result in more confusion since ESF systems are plant specific.

NUREG: [p84,s3.3.2]

The guidance given for RPS and ESF definitions, reportability, and exceptions, also applies to the reporting of ATWS system actuations or failures to actuate.

COMMENT:

Although the ATWS system is a backup for RPS, the system should not be considered as part of the reactor protection system, and therefore, should not be required to be reported.

NUREG: [p87,s3.3.2 Ex.7]

A voltage transient caused spiking of a rad monitor resulting in isolation of the Control Room Ventilation system, and is therefore reportable.

COMMENT:

Isolation of the CRV via a rad monitor is not an ESF function.

NUREG 1022, REVISION 1 COMMENTS

3.3.3 - Event or Condition that Alone could have Prevented Fulfilment of the Safety Function of Systems

NUREG: [p91,s3.3.3,2nd p]

If either offsite power or onsite emergency power is unavailable to the plant, it is reportable.

COMMENT:

Loss of offsite power should not be reported under this section since it is not considered to be a plant system performing safety functions and taken credit for in the accident analysis. However, a loss of offsite power and consequences thereof, may be reportable under other criterion (e.g. Unusual Event).

NUREG: [p92,s3.3.3] **Multiple Independent Failures**

Whenever there are a number of simultaneous independent events or conditions that cause 2 or more functionally redundant trains to be unable to perform their safety functions concurrently, they are reportable.

COMMENT:

This bullet is clearly in conflict with the Rule and statements of consideration. The rule requires "the event or condition that **alone** could have...". Multiple independent failures of 1 systems' trains may, however, be required to be reported as a condition prohibited by Tech Specs.

NUREG: [p95/96,s3.3.3 Ex.5]

The event is reportable under this criterion and 50.73a2(vii)(common mode failure) because both trains of emergency power and service water were simultaneously inoperable by different causes at different times.

COMMENT:

Same comment as p92. A system where 2 trains are rendered inoperable by different causes during the same time frame should not be reported under this criterion. 50.73a2(i)(B), Condition Prohibited by Tech Specs would apply in this case. Also, this event would not be reportable under 50.73a2(vii) for the same reason.

NUREG: [p96,3.3.3 Ex.6]

During Refueling, 1 D/G was out of service for maintenance and the second D/G was declared inoperable. An ENS notification and LER is required under this criterion.

COMMENT:

See comment p92/95. If the D/G TS LCO Action was complied with, the event is not reportable.

NUREG 1022, REVISION 1 COMMENTS

SECTION 3.3.7: News Release or Other Government Notifications

GENERAL COMMENTS: [p108-114,s3.3.7]

The draft NUREG presents more information under this very subjective criterion than currently exists; however, the reporting of non-radiological environmental incidents still needs further clarification or discussion. On occasion, after a minor incident affecting the environment, the station will notify certain government agencies as a courtesy, but not required. A question of when the NRC should be notified from these type of events still remains. It is difficult to determine, in some cases, when an event may or may not be perceived by the public as "significant", and therefore reportable.

Guidance under this section could be strengthened by additional discussion for the above events, as well as, several more examples of incidents that require and do not require red phone notifications.

NUREG 1022, REVISION 1 COMMENTS

SECTION 4: EMERGENCY NOTIFICATION SYSTEM REPORTING

4.3 - Typical ENS Reporting Issues

GENERAL COMMENTS: [p135-152,s4.3.1 & 2]

It should be over emphasized in this section that the first priority of the SRO on duty is to maintain the plant in a safe condition. Many transients/events that occur require the operators' full attention more than just the first critical "few minutes". This section also includes several questions under the reporting criteria that would appear to take even more time from the SRO in the performance of his duties, than normally requested during a red phone notification. For many of the questions, the SRO typically does not have that information available during the initial call. Therefore, it should be made clear in this document that the usual information requested by the NRC as listed in this section, should only be used as informal guidance to the communicator in preparing the report and that the Headquarters Operation Officer should keep the SRO's first priority in mind by not keeping him on the line any longer than necessary during the course of an event.

SPECIFIC COMMENTS:

NUREG: [p129,2nd p]

Reporting of design problems should be made on the basis of engineering judgment, instead of engineering reviews taking many months. If the licensee initially decides that a problem is significant enough to enter a TS LCO or **take other compensatory measures**, it is immediately reportable on that evidence alone.

COMMENT:

If an LCO Action statement is entered, then the licensee has made a decision (by whatever basis) to declare the SSC inoperable and a reportability determination can be made at that time. However, the licensee may take very conservative compensatory measures when the outcome of the analysis is unknown, but the consequences could be significant. These are good, safe management practices and should not be discouraged by requiring an unknown condition to be reported.

NUREG: [p140,s4.3.2,top bullet]

..whether a JCO is necessary or being prepared

COMMENT:

JCO should be changed to Waiver of Compliance (WOC). If a JCO is being prepared, then a WOC is going to be requested, by definition, since the JCO is the written technical basis for the Waiver. It should be noted, however, that the ENS phone call is not the appropriate "arena" to initiate discussions concerning Waivers of Compliance.