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U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
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References:

1) Fermi 2
NRC Docket No. 50-341
NRC License No. NPF -43

2) Proposed Rule: "Reporting Reliability and Availability Information for Risk-Significant Systems and Equipment," published in the *Federal Register* dated February 12, 1996 (61FR5318)

3) Draft Regulatory Guide DG-1046 dated April 1996, "Guidelines for Reporting Reliability and Availability Information for Risk-Significant Systems and Equipment in Nuclear Power Plants"

Subject: Detroit Edison Comments on Proposed Rule: Reporting Reliability and Availability Information for Risk-Significant Systems and Equipment

Detroit Edison is pleased to have an opportunity to comment on the Nuclear Regulatory Commission's (NRC) proposed rule, "Reporting Reliability and Availability Information for Risk-Significant Systems and Equipment," published in the Reference 2 *Federal Register*.

In summary, we believe the proposed rule is unnecessary and should not be promulgated by the NRC. Our view is based on the following points:

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- The additional data reporting and recording keeping is not needed by the NRC for assessing compliance with any current regulatory requirement.

- The estimate of industry burden provided in the supporting statement to OMB is inaccurate. The rule would actually impose an excessive burden on the industry.

- The potential total impact of the proposed rule is uncertain because definitions of terms are not clear and would be subject to interpretation.

- The data required by 10 CFR 50.76 represents a substantial increase in data collection needs over and above the Maintenance Rule.

With regard to the first point above, the reporting and record keeping of reliability and availability information is not necessary for the NRC to oversee the implementation of current regulatory requirements by reactor licensees. There are already hundreds of different reporting and record keeping requirements that fulfill this purpose (ref. NUREG-1460, Guide to NRC Reporting and Record keeping Requirements). As stated in the Federal Register notice, the NRC believes "...the information is necessary to substantially improve the NRC's ability to make risk effective decisions consists with the Commission's policy statement on the use of probabilistic risk assessments (PRA)." It should be noted, however, that there is no regulatory requirement for licensees to conduct PRAs or maintain PRA models. Thus, the proposed rule has no statutory basis and would require record keeping and reporting information for use in an analytical tool that is not required by regulation. Its promulgation, in and of itself, does not result in any improvement to public health and safety.

We believe that data reporting and record keeping requirements should be directly associated with regulatory activities that are necessary for the NRC to fulfill its statutory mission to protect public health and safety or that provide substantial additional protection under the provisions of the backfit rule. Furthermore, we believe it is premature for the NRC to require additional data reporting and record keeping in advance of future risk-based regulations or regulatory activities. Any additional data reporting or record keeping requirements should be integrated and in step with the risk-based regulatory initiative under consideration so that the associated costs and benefits can be assessed accurately.

Our second point above addresses the estimate of industry burden imposed by the proposed rule. In the supporting statement provided to OMB, it is assumed that 80 of 110 licenses are collecting, or plan to collect, similar reliability and availability information. A basis for this assumption is not provided.

Based on our discussions with other utility personnel at Maintenance Rule conferences, few if any, licensees collect the information as described in the proposed rule. There are two major differences from what data is typically collected and what the proposed rule would require. These major differences involve the collection and reporting of demand information and information on the concurrent unavailability of two or more systems or trains.

Regarding demand information, the proposed rule calls for the collection and reporting of actual demand information, whereas the industry typically estimates the number of demands on equipment. By requiring actual demand information that is equivalent to the information collected for actual failures, the burden of data collection is dramatically increased. For example, for equipment that is tested on a monthly basis, the information associated with each of the twelve demands in a year would be collected and reported under the proposed rule. Today, if one of those twelve demands resulted in a failure, the only equivalent information that would be collected would be on the demand that resulted in the failure. Thus, for this example, the proposed rule would increase the burden of data collection by greater than a factor of ten, just on test demand information alone. Given that the reliability of risk-significant equipment in the industry is generally well above 90%, and that the proposed rule calls for information on both failures and successes on all types of demands (test, inadvertent, or actual need), the actual burden of record keeping and reporting on demand information is substantially greater than the estimate provided to OMB.

The second key difference involves the collection of the number of hours when two or more trains from the same or different systems are concurrently unavailable, as would be required under the proposed rule. Current industry practice focuses on monitoring the number of hours that a single train is unavailable, not on the overlap of hours when two or more trains are unavailable. This requirement would be particularly burdensome during refueling outages, when several plant systems are removed from service for maintenance.

Regarding the third and fourth points above, the NRC has preliminarily chosen a set of basic systems for which reliability data (i.e., demands, failures to start, etc.) will be reported for all plants which have them. Basic Systems for Fermi are seen in Table 1.

Table 1

TYPE	BASIC SYSTEMS	AVAILABILITY DATA COLLECTED NOW	DEMAND DATA COLLECTED NOW
Reactor core Isolation	RCIC	YES	Start and run
Feedwater coolant injection	HPCI	YES	Start and run
Reactor Protection	RPS	YES	Functional Failures only
Low pressure coolant injection	LPCI CS*	YES YES*	Start and run Functional Failures only
Emergency power	EDGs	YES	Start and run

*CS -- Core Spray is not risk significant at Fermi 2 from Maintenance Rule perspective. Data collected for annual report per Technical Specification 6.9.1.5.c only for outages during the time when the system required to be operable per Technical Specifications.

Monitoring of Maintenance Rule performance criteria at Fermi 2 is currently as seen in Table 1. The monitoring established is totally consistent with PSA assumptions. For example, RPS requires an extremely high reliability. Since the reliability must be very high, monitoring functional failures is sufficient to determine if the system does not meet this performance criteria since one functional failure would cause the system not to obtain its very high reliability performance requirement. This philosophy applies to other "high reliability" systems. If there is one functional failure, then it has failed to meet its performance criteria. Keeping track of demands will add no value. Further, Core Spray is not risk significant and therefore does not merit detailed Maintenance Rule monit[illegible] performed for other more risk significant systems. Therefore, for some basi[illegible]stems increased monitoring burden would be necessary to accommodate Data Rule [illegible]onitoring.

The basic systems listed in Table 1 are not sufficient by themselves per the proposed rule. Additional systems and equipment to be monitored will depend on plant-specific features. These additional systems would be selected based on plant-specific PRA studies. Potential systems which may fall in the scope of the Data Rule are seen in Table 2.

Table 2

TYPE	SYSTEM	AVAILABILITY DATA	DEMAND DATA (START/RUN)
Feedwater coolant injection	SBFW	YES	Functional failures
Reactivity control	SLCS	YES	YES
Decay Heat Removal	RHR	YES	YES
Service Water	GSW*	NO*	System functional failures

* For the GSW system, redundancy is qualitatively monitored in lieu of quantitative availability measures

As can be seen, substantial increases in monitoring requirements would be needed to accommodate the Data Rule. The Data Rule also requires plants to report reliability and availability for certain risk significant systems and equipment. This applies to the event mitigating systems and equipment which could have significant effect on risk in terms of avoiding core damage accidents or preserving containment integrity. Clarification regarding scoping of systems with "significant effect on risk" is required. This is very subjective and would be left to the opinion of an inspector unless further definition is provided. In summary, the concern is that the small list of Data Rule systems in Table 2 could be expanded through inspection actions to include all potentially risk-significant systems due to an ambiguity in the Data Rule language.

Detroit Edison also has specific comments discussed below.

(61FR5320 and 5326): This comment pertains to the following excerpted statements: ". . . licensee(s) might schedule train outages for maintenance at certain times, such that risks are substantially increased over what would be expected based on random outages. This situation would not be indicated by current reporting requirements, or even by simply reporting train unavailability, but it could be indicated by the concurrent unavailability of two or more trains as would be reported under the proposed rule." These statements imply that the Data Rule is necessary to control such occurrences, but in fact, describe risk management efforts required to properly implement the Maintenance Rule. The PSA model already handles the effects of multiple systems out of service.

(61FR5321): With regard to the statement, "For example, an individual plant may have an atypical reliability problem with a specific risk-significant system

and thereby warrant additional attention." This seems to duplicate the intent of the Maintenance Rule. Systems that do not meet their performance criteria would normally be classified as (a)(1) and an appropriate get well plan established.

(61FR5321): With regard to the statement "It is anticipated that licensees will request a number of relaxations in surveillance intervals and allowed outage times....." This example of benefit under Risk Based Technical Specifications implies allowances for relaxation of allowed outage times (AOT). It is Detroit Edison's concern that if the NRC judges individual changes on a "risk-neutral" basis, that any relief of this nature will be precluded, eliminating any value of the rule for such applications.

(61FR5322): With regard to the statement, "The NRC would use the hours when any two or more trains from the same or different systems are concurrently unavailable to monitor how well licensees are managing the risk associated with such maintenance" the NRC seems to be intruding into Maintenance Rule space. This again is covered by the Maintenance Rule and on-line maintenance control which is under heavy scrutiny by the NRC without the Maintenance Rule The interplay between two rules is confusing and could well lead to reporting difficulties.

(61FR5322): Under "Licensee Implementation" it is implied that plant specific data on reliability would play significant role in OOS decision making. The major component for such decision making is to set up risk models and a framework for obtaining risk impact of OOS, independent of the Data Rule. Better data would only reduce the uncertainty in the quantified result, a secondary benefit.

(61FR5323): The task of data taking including the setting of criteria such as what constitutes a failure as defined under the section "Failure" can be very complex. The proposed Regulatory Guide DG-1046 goes into this in some detail. For example, note the statement under Section 5: "Degradation in equipment performance that do not satisfy operability requirements for design basis accidents but would not prevent the accomplishment of a risk-significant function are generally not reportable as failures under this rule." Addressing each such detail can well be time-consuming and open to the threat of NRC disagreement on the criteria chosen on the one hand or over conservative data results on the other. This problem is always there, but now it will be under the weight of a rule. Specific examples of the complexity are actually cited in DG-1046 in Sections 5 and 5.3 when they discuss desired start times and recoveries.

(61FR5324): The scope of the rule is very nebulous and could lead to a lot of effort in establishing and could result in a large number of systems/trains relative to say the systems of interest to INPO. Recall the effort that went into the Maintenance Rule scope. To minimize this effort, a conservative approach would likely be taken (all risk significant systems/trains) leading to a large number of systems (instead of the 7 to 10 estimated by DG-1046) and a corresponding large effort to collect the data. Moreover, when the rule talks of "systems and equipment," DG-1046 implies that data at the component level is likely to be required, leading to significant increase in effort. See Appendix E of DG-1046, including example 6. See also section (b)(3) of the rule on p. 5326FR.

(61FR5326): The requirements under section (b)(1)(iv) that include the cause and effect of each failure and the proposed form titled "Component Failure Records" (Appendix F to DG-1046) that specifies a description of the corrective actions appears to extend beyond reliability data and correspondingly adds to the effort. The rule appears to be codifying corrective action programs, which should not be the intent of the Data Rule.

Given the concerns discussed above as well as several ambiguities in the information required by the rule versus current industry practice, we believe burden imposed by the rule would outweigh its potential benefits. The estimate of burden provided in the supporting statement to OMB is fundamentally flawed and inaccurate. The burden of the record keeping and reporting imposed on licensees would be 2 to 7 times of that estimated on an annual/recurring basis. These estimates do not include any costs associated with the installation and maintenance of equipment such as total run-hour meters, building an infrastructure to archive and retrieve the data, training required for those obtaining the data, nor the cost of sending individuals to industry conferences which are sure to come if this rule is promulgated.

In summary, we believe the proposed rule is unnecessary and should not be promulgated by the NRC.

If you have questions on our comments, please contact Mr. Robert Newkirk at (313) 586-4211.

Sincerely,

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