UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

March 9, 1983

MEMORANDUM FOR: Eric Weiss
Office of Inspection and Enforcement

FROM: Joseph T. Cawley, II
Rules and Procedures Branch
Division of Rules and Records
Office of Administration

SUBJECT: DRR REVIEW OF FINAL IMMEDIATE NOTIFICATION RULE (MARCH 4, 1983, VERSION)

Attached with required format and suggested style changes indicated are the Federal Register notice and the Regulatory Analysis for the final rule noted above.

The Regulatory Flexibility Act Statement, the words of issuance, and the citation of authority on pages 30 and 31 of the Federal Register notice should be revised as indicated.

The paragraph designation format for § 50.72 should be revised as shown. Note that the order of paragraphs has also been changed to maintain continuity throughout the section (pages 34 and 35 of the Federal Register notice). Additional important format revisions have been made in the amendatory language and regulatory text of the amendments.

As discussed during our March 8, 1983, phone conversation, I suggest that you contact OELD to clarify the need for the § 50.54 provision contained in the rule. Note that the new § 50.54 paragraph has been redesignated as paragraph (z). This designation may change depending upon the timing of publication for other rules containing new paragraphs for § 50.54.

Since paragraphs within § 50.72 have been redesignated to meet format requirements, you should check the paragraph explanation portion of the SUPPLEMENTARY INFORMATION section of the rule and the Regulatory Analysis for references to specific paragraphs which may need revision.

Editorial changes have been made throughout the Regulatory Analysis. You should review them carefully as they add considerably to the clarity and effectiveness of the analysis.

Please call me on ext. 24269 if you have any questions concerning the matters discussed above.

Joseph T. Cawley, II

Joseph T. Cawley, II
Rules and Procedures Branch
Division of Rules and Records
Office of Administration

Attachments: As stated

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MAR 0 4 1983

MEMORANDUM FOR: W. J. Olmstead, ELD
D. G. Eisenhut, NRR

FROM: Edward L. Jordan, Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement

SUBJECT: §50.72, IMMEDIATE NOTIFICATION

Pursuant to the discussion of the recent CRGR meeting, I proposed that we meet to discuss §50.72 on March 9 at 9:00 a.m. in my office.

Please find enclosed a copy of the revised §50.72 reflecting the course of action that I outlined in the CRGR meeting.

for Edward L. Jordan, Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement

Enclosure: Revised §50.72

cc w/enclosure:
F. Hebdon, AEOD
J. T. Beard, NRR
J. Cawley, ADM
C. J. Heltemes, AEOD

NUCLEAR REGULATORY COMMISSION

10 CFR Part 50

Immediate Notification Requirement

For Operating Nuclear Power Reactors

AGENCY: Nuclear Regulatory Commission.

ACTION: Final Rule.

SUMMARY: The Nuclear Regulatory Commission is amending its regulations which require immediate notification of significant events at licensed commercial nuclear power plants in light of experience with existing requirements and public comments on a proposed revision of the rule. The existing regulation uses reporting criteria that licensees have sometimes found vague and that the Commission has sometimes found to occasionally result in notifications of little value. The amended regulation will clarify the list of reportable events and provide the Commission with more meaningful reports regarding the safety of operating nuclear power plants.

EFFECTIVE DATE:

FOR FURTHER INFORMATION CONTACT: Eric W. Weiss, Office of Inspection and Enforcement, U. S. Nuclear Regulatory Commission, Washington, D. C. 20555; Telephone (301) 492-4973.

SUPPLEMENTARY INFORMATION:

I. BACKGROUND

On December 21, 1981, the Commission published in the Federal Register a notice of proposed rulemaking (46 FR 61894), and invited public comment on that rulemaking. The proposed rulemaking considered: (1) The incorporation of the immediate notification requirements of §50.72 into §50.54 as a condition of every operating license to implement the provisions of section 201 of the Nuclear Regulatory Commission Authorization Act for Fiscal Year 1980 (Pub. L. 96-295), and (2) certain clarifications and refinements of the reporting requirements contained in §50.72.

Licensees are now subject to certain notification requirements, both as to the contents of their applications for operating licenses and as to actions authorized by the operating licenses. All applications for licenses under sections 103 and 104b of the Atomic Energy Act (Act) of 1954, as amended, ~~42 USC 2133, are now required by §50.54 to~~ must include emergency plans that contain the various elements set forth in 10 CFR Part 50, Appendix E. These section 103 and 104b facilities are the commercial nuclear power facilities that produce electricity for public consumption. Research and test reactors are not subject to these notification requirements as they are licensed under section 104a and 104c of the Atomic Energy Act. Section IV of Appendix E requires that the plans include procedures for notifying local, state, and Federal officials. Once an operating license under sections 103 and 104b is granted, the licensee is required by 10 CFR 50.72 to actuate immediate notification procedures upon the occurrence of any of the specific "significant events" described in §50.72.

Since the enactment of section 201, the NRC has provided ~~further~~ guidance to operating licensees as to situations or events which require notification by

the licensee of the NRC, and States and local response organizations and other emergency personnel. On August 19, 1980, the NRC published a final rule on emergency planning, effective on November 3, 1980 (45 FR 55402). This rule established a multifaceted emergency planning and preparedness program and, among other things, required procedures to be established for immediate notification of the NRC, and State, and local emergency response personnel in certain situations.

These situations ~~were~~ are discussed in Revision 1 to NUREG-0654/FEMA-REP-1, entitled "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Plants" (hereinafter Revision 1"), which was issued in November 1980, shortly after the Emergency Planning rule became effective.[1] Revision 1 specified four classes of Emergency Action Levels involving notification actions--Notification of Unusual Event, Alert, Site Area Emergency, and General Emergency. Revision 1 also set forth examples of initiating conditions for each of these four Emergency Classes.

The rationale for the requirement for notification of an Unusual Event is to provide early and prompt notification of minor events which could lead to more serious consequences given operator error or equipment failure, or the occurrence of a seemingly minor event which might be indicative of more

[1] Copies of NUREG documents are available at the Commission's Public Document Room 1717 H Street, NW, Washington, D. C. 20555. Copies may be purchased from the Government Printing Office. Information on current prices may be obtained by writing the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555. Attention: Publications Sales Manager

serious conditions which are not yet fully realized. The Alert emergency class reflects events which involve an actual or potential substantial degradation of the level of the safety of the plant. The Site Area Emergency class reflects conditions where some significant releases of radioactivity are likely or are occurring, but where a core melt situation is not indicated based on current information. In this situation, full mobilization of emergency personnel in the near site environs is indicated as well as dispatch of monitoring teams and associated communications. The General Emergency class involves actual or imminent substantial core degradation or melting with the potential for loss of containment.

? some extra detail would be helpful

As discussed in the proposed rule, the criteria set forth in Revision 1 and the examples of events triggering the respective Emergency Classes (with attendant notification actions) provide additional guidance for every operating licensees in the preparation, approval, and ultimately, the implementation of their emergency preparedness plans which must be submitted to NRC for evaluation pursuant to 10 CFR 50.47.

This revision of §50.72 promulgated by this rulemaking reflects a continuing effort to achieve consistent terminology, phrasing, and thresholds in the reporting criteria of various portions of the Commission's regulations. Nevertheless, this revision of §50.72 includes under "Non-Emergency Events" some events which also fall within the "Unusual Event" category of the Emergency Classes defined in CFR Part 50, Appendix E. The Commission is intentionally promulgating the regulation in this manner in order to prepare the regulatory foundation for a new reporting scheme that will eliminate "Unusual Event" as an Emergency Class. However, since the subject of this rulemaking is not emergency planning another rulemaking will be required to delete "Unusual Event" from Emergency Classes. In this regard, the NRC staff is currently preparing a proposed rule which addresses the issue of emergency planning and expects to publish the rule in the Federal Register soon to obtain public comment.

The NRC considers that incorporation of the immediate notification requirements of §50.72 into §50.54 as a condition in every operating license granted under sections 103 and 104b of the Atomic Energy Act will implement the Congressional mandate in section 201 of the Authorization Act. Section 201, however, also provides that immediate notification of the NRC be made for "any accident which could result in an unplanned release of quantities of fission products in excess of allowable limits of normal operation established by the NRC." ~~The~~ This provision ~~would be~~ is implemented by ~~the changes proposed~~ revisions to §50.72 ~~also contained~~ included in this ~~notice~~ final rule.

Besides amending §§50.54 and 50.72, ~~the subjects of the rulemakings~~ through the issuance of this final rule the NRC is developing a new §50.73, "Licensee Event Report System" (47 FR 19543). The reporting requirements of §50.72 are being coordinated with those of §50.73 in order to use similar phrasing and reporting thresholds ~~in the two~~ for both regulations.

II ANALYSIS OF COMMENTS

Twenty letters of comment were received in response to the Federal Register notice published on December 21, 1981 (46 FR 61894)[2]. This Federal Register notice described the proposed revision of 10 CFR 50.72, "Notification of Significant Events," and 10 CFR 50.54, "Conditions of Licenses." A discussion of the more significant comments follows:

[2]Copies of these documents are available for public inspection and copying for a fee the NRC Public Document Room, 1717 H Street, N. W., Washington, D. C. 20555

General

A few general comments were received to the effect that the Commission already has the ability to enforce its regulations and does not need to incorporate the items as now proposed into conditions of license. See in §50.54

The Commission has decided to promulgate the proposed revision of §50.54 "License Condition" in order to satisfy the intent of Congress as expressed in Section 201 of the Nuclear Regulatory Commission Authorization Act for Fiscal Year 1980 (Public Law 96-295). This Act and its relationship to this rulemaking are discussed in detail in the Federal Register notice for the proposed rule (46 FR 61894).

Coordination with other Reporting Requirements

Seven commenters said that the NRC should coordinate the requirements of 10 CFR 50.72 with other rules, NUREG-0654 and Reg. Guide 1.16. Many of these commenters identified overlap, duplication and inconsistency among NRC's existing reporting requirements.

The Commission is making a concerted effort to ensure that information is collected from licensees through the use of consistent and coordinated reporting requirements. The requirements contained in the revision of §50.72 are being coordinated with revision of §50.73, §50.55(e), and final reporting requirements in §§ 20.402, 73.71 and Part 21. The rule also replaces previous guidance contained in Reg. Guide 1.16.

Building Evacuation

Ten commenters stated that the proposed provision of §50.72(b)(6)(iii) regarding any accidental, unplanned or uncontrolled release resulting in evacuation of a building was unclear and counter-productive in that it could cause reluctance to evacuate a building. Many of these commenters stated that the reporting of

in-plant releases of radioactivity that require evacuation of individual rooms was inconsistent with the general thrust of the rule to require reporting of significant events. They noted that minor spills, small gaseous waste releases, or the disturbance of contaminated particulate matter (e.g., dust) may all require the temporary evacuation of individual rooms until the airborne concentrations decrease or until respiratory protection devices are utilized. They noted that these events are fairly common and should not be reportable unless the required evacuation affects the entire facility or a major portion thereof.

In response to these comments the wording of this criterion has been changed to significantly narrow the scope of the criterion to include only those events which significantly hamper the ability of site personnel to perform safety-related activities.

The NRC has also revised this reporting requirement to eliminate reference to building evacuation and instead rely on specific radiological release rate criteria.

Plant Operating and Emergency Procedures

Several commenters said that the reporting criteria should not make reference to plant operating and emergency procedures because:

a. It would take operators too long to decide whether a plant condition was covered by the procedures,

b. The procedures cover events that are not of concern to the NRC, and

c. The procedures vary from plant to plant.

The Commission believes that the plant's operating personnel should be familiar with their procedures. However, the wording of the reporting criteria

has been modified (§50.72(b)(1)(ii)) in the final rule to narrow the events covered to those that significantly compromise plant safety. Notwithstanding the fact the procedures do vary from plant-to-plant, the Commission believes that this criterion would result in notifications indicative of serious events.

Reactor Scrams

Several commenters said reactor scrams, particularly those scrams below power operation, should not require notification of the the NRC within one hour.

In response to these comments, the Commission has changed the reporting deadline to four hours. However, the Commission does not regard reactor scrams as "non-events" as stated in some letters of comments. Information related to reactor scrams has been useful in identifying safety related problems. The Commission believes that four hours is an appropriate deadline for this reporting requirement because these events are normally not as important to immediate safety as are some other events.

Radioactive Release Threshold

Several commenters said that the threshold level of 25% of allowable limits for radioactive releases was too low a threshold for 1-hour reporting.

Based upon this comment and our experience, the Commission has changed the threshold of reporting to 2 times allowable limits. This will eliminate reports that have proved to be of little value.

Citing 10 CFR 50.72 as Basis for Notification

A few commenters objected to citing §50.72 as a basis when making a telephone notification. The letters of comment questioned the purpose, legal effect, and burden on the licensee.

The Commission does not believe that it is an unnecessary burden for a licensee to know and identify the basis for a telephone notification required by §50.72. There have been many occasions when a licensee could not tell the NRC whether the telephone notification was being made in accordance with technical specifications, 10 CFR 50.72, some other requirement, or was just a courtesy call. Unless the licensee can identify the nature of the report, it is difficult for the NRC to know what significance the licensee attaches to the report and it becomes more difficult for the NRC to respond quickly and properly to the event.

Personnel Radioactive Contamination

Several commenters objected to the use of vague terms such as "extensive onsite contamination" and "readily removed" in one of the reporting criterion of the proposed rule.

Based on this comment, new criteria have been prepared that do not use these terms.

Notification Timing

The commenters generally had two points to make regarding the timing of reports to the NRC. First, the comments supported notification of the NRC after appropriate state or local agencies have been notified. Second, two commenters requested that there be a new four-to six-hour report category for events not warranting a report with one hour.

Based on these comments and its experience, the NRC has established a "four-hour report" category titled "Non-Emergency Notification" as was suggested.

Immediate Shutdown

Several commenters objected to the use of the term "immediate shutdown" saying that technical specifications do not use such a term.

Since the term is used in some but not all Technical Specifications, the Commission has revised the reporting criterion in question. The final rule requires a report upon the initiation of any nuclear power plant shutdown required by Technical Specifications.

Explicit Threats

A few commenters said that the intent of the term "explicitly threatens" was unclear. Those commenting wondered what level of threat was being referred to. The term "explicitly threaten" has been deleted from the final rule. Instead, the wording of the final rule refers to "any event that threatened the safety of the nuclear power plant" (§50.72(b)(1)(vi)) and gives examples so that it is clear the Commission is interested in real or actual threats.

III. SPECIFIC FINDINGS

Overview of the Immediate Notification System

When this final rule becomes effective, the immediate notification reporting requirement will provide the NRC with timely reports of emergencies and other safety significant events. This amendment of §50.72, "Notification of Significant Events" will result in basically three types of improvements.

One improvement is that the NRC will receive notification of safety significant events that were not previously covered under the existing provisions of §50.72. For example, the final rule requires reporting of any "major loss of emergency assessment or communications capability (e.g., significant portion of control room indicator or Emergency Notification System)." This and other changes in reporting criteria will provide the NRC with a more complete Immediate Notification System.

A second improvement is that certain events that were previously reported, despite having little safety significance, will no longer be reported. For example, §50.72 currently requires the reporting of any fatality or injury occurring on the site and requiring transport to an offsite medical facility. This has resulted in a large number of worker injury reports. The new rule requires reporting transport of a radioactively contaminated person to offsite individual facility for treatment ~~or if~~ news release is planned or notification to other government agencies has been made. These changes and others are expected to greatly reduce the number of inconsequential reports.

The third and perhaps most important improvement is that the ~~revision~~ of this rule has been closely coordinated with ~~other sections of Part 50, Part 20, and Part 21.~~ Many of the reporting criteria in the ~~new~~ rule are similar in wording and intent to reporting in the ~~new~~ §50.73 "Licensee Event Report System." This should aid ease of interpretation and generally improve coordination in the generation, receipt and use of reports.

Several substantive revisions of other sections of the Commission's regulations are underway that will like-wise use similar wording in their reporting requirements (e.g., 50.55(e) and 10 CFR Part 21). ~~In addition, a Proposed Rulemak~~ is being prepared ~~outlining the Commission's intent to~~ revise emergency planning criteria in 10 CFR 50, Appendix E and 10 CFR 50.47 to eliminate "Unusual Event" as an emergency class.

Paragraph-By-Paragraph Explanation of The Rule

Paragraph 50.72 (a) states:

"General Requirements. (1) Each licensee of a nuclear power reactor licensed under §50.21(b) or §50.22 shall notify the NRC Operations Center via the Emergency Notification System of: (i) The declaration of any of Emergency Classes specified

in the licensee's approved Emergency Plan; or (ii) Those non-Emergency events specified in paragraph (b) of this section. (2) If the Emergency Notification System is inoperative, the the licensee shall make the required notifications via commercial telephone service, other dedicated telephone system or any other method which will ensure a report being made as soon as possible to the NRC Operations Center."

(3) The licensee shall notify the NRC immediately after notification of the appropriate State or local agencies and within one hour of the time the licensee declares one of the Emergency Classes."

(4) The licensee shall identify: (i) the Emergency Class declared, or (ii) either paragraph (b)(1) "One-Hour Reports" or paragraph (b)(2) "Four-Hour Reports" as the paragraph of this section requiring a Non-Emergency Events Notification.

(b) Non-Emergency Events. (1) One-Hour Reports. If not reported as a declaration of an Emergency Class under paragraph (a) of the section, the licensee shall notify the NRC as soon as possible and in all cases within one hour of the occurrence of any of the following:"

This introductory paragraph reflects some consolidation of language that was repeated in various subparagraphs of the proposed rule. In general, the intent and scope of this paragraph do not reflect any change from the proposed rule.

Several titles were added to this and subsequent sections. For example, paragraph 50.72(b) is titled "Non-Emergency Events" and this has two subparagraphs(b)(1) titled "One-Hour Reports" and (b)(2) "Four-Hour Reports." The justification for a one-hour deadline is based upon the potential for these events to escalate to Emergency Class. The justification for a four-hour deadline is explained in the analysis of that paragraph.

The terms "immediate" and "immediately" used in this and suceeding paragraphs refer to notifications that should be made as soon as possible. However, the Commission recognizes that some events have more safety significance than others and the various duties and exigencies associated with operating a nuclear power plant may mitigate against an immediate notification for less safety-significant events. Depending on the type of event, different absolute deadlines are associated with each immediate notification. As stated in later paragraphs "non-Emergency events" may be reported within either one hour or four hours depending on their significance, and all declarations of an Emergency Class must be reported within 1 hour.

Paragraph 50.72 (b)(1)(i) requires reporting of: "The initation of any nuclear plant shutdown required by Technical Specifications." While the intent and scope has not changed, the change in wording between the proposed and final rule is intended to clarify that prompt notification is required once a shutdown is initiated.

In response to public comment, the term "immediate shutdown" that was used in the proposed rule is not used in the final rule. The term was vague and unfamiliar to those licensees that did not have Technical Specifications using the term.

This reporting requirement is intended to capture those events for which Technical Specifications require the initiation of reactor shutdown. This will provide the NRC with early warning of safety significant conditions serious enough to warrant shutdown of the plant.

Paragraph 50.72(b)(1)(ii) [encompassing events previously classified as Unusual Events and some events captured by proposed 50.72(b)(1)] requires reporting of:

"Any event or condition during operation that resulted in the condition of the nuclear power plant, including its principal safety barriers, being seriously degraded; or resulted in the nuclear power plant being in an unanalyzed condition that significantly compromises plant safety; in a condition that was outside the design basis of the plant; or in a condition not governed by the plant's operating and emergency procedures." This paragraph was added to provide for consistent, coordinated reporting requirements between this rule and 10 CFR 50.73 which has a similar provision. Public comment suggested that there be similarity of terminology, phrasing and reporting thresholds on both §50.72 and §50.73. The intent of this paragraph is to capture those events where the plant, including its principal safety barriers, was seriously degraded or in an unanalyzed condition. For example, small voids in systems designed to remove heat from the reactor core which have been previously shown through analysis not to be safety significant need not be reported. However, the accumulation of voids that could inhibit the ability to adequately remove heat from the reactor core, particularly under natural circulation conditions, would constitute an unanalyzed condition and would be reportable. In addition, voiding in instrument lines that results in an erroneous indication causing the operator to misunderstand the true condition of the plant is also an unanalyzed condition and should be reported.

The Commission recognizes that the licensee may use engineering judgment and experience to determine whether an unanalyzed condition existed. It is not intended that this paragraph apply to minor variations in individual parameters, or to problems concerning single pieces of equipment. For example, any time, one or more safety-related components may be out of service due to testing, maintenance, or a fault that has not yet been repaired. Any trivial single failure or minor error in performing surveillance tests could produce a situation in which

two or more often unrelated, safety-grade components are out-of-service. Technically, this is an unanalyzed condition. However, these events should be reported only if they involve functionally related components or if they significantly compromise plant safety.

Finally, this paragraph also includes material (e.g., metallurgical, chemical) problems that cause abnormal degradation of the principal safety barriers (i.e., the fuel cladding, reactor coolant system pressure boundary, or the containment). Examples of this type of situation include:

(a) Fuel cladding failures in the reactor, or in the storage pool, that exceed expected values, that are unique or widespread, or that are caused by unexpected factors, and would involve a release of significant quantities of fission products.

(b) Cracks and breaks in the piping or reactor vessel (steel or prestressed concrete) or major components in the primary coolant circuit that have safety relevance (steam generators, reactor coolant pumps, valves, etc.).

(c) Significant welding or material defects in the primary coolant system.

(d) Serious temperature or pressure transients.

(e) Loss of relief and/or safety valve functions during operation.

(f) Loss of containment function or integrity including:

(i) containment leakage rates exceeding the authorized limits

(ii) loss of containment isolation valve function during tests or operation, or

(iii) loss of main steam isolation valve function during test or operation (iv) loss of containment cooling capability

Paragraph 50.72(b)(1)(iii) [encompassing a portion of proposed 50.72(b)(2)] requires reporting of:

"Any natural phenomenon or other external condition that posed an actual threat to the safety of the nuclear power plant or significantly hampers site personnel in the performance of duties necessary for the safe operation of the plant."

This paragraph was reworded to correspond to a similar provision of 10 CFR 50.73(a)(2)(iii). By making the requirements of 10 CFR 50.72 and 50.73 similar i language, when possible, the Commission hopes to increase the coordination between these rules.

The paragraph has also been reworded to make it clear that it applies only to acts of nature (e.g., tornadoes) and external hazards (e.g., railroad tank car explosion). References to acts of sabotage have been removed, since these are covered by §73.71. In addition, threats to personnel from internal hazards (e.g., radioactivity releases) are now covered by paragraph 50.72(b)(2)(vi). This paragraph is intended to capture those events where there is an actual threat to the plant from an external condition or natural phenomenon, and where the threat or damage challenges the ability of the plant to continue to operate in a safe manner (including the orderly shutdown and maintenance of shutdown conditions). The licensee should decide if a phenomenon or condition actually threatened the plant. For example, a minor brush fire in a remote area of the site that was quickly controlled by fire fighting personnel and, as a result, did not present a threat to the plant should not be reported. However, a major forest fire, large-scale flood, or major earthquake that presents a clear threat to the plant should be reported. As another example, an industrial or transportic accident which occurs near the site creating a plant safety concern should be reported.

One commenter was concerned that events occurring on land owned by the utility adjacent to the utility's plant, might be reportable. This is not the intent of this reporting requirement. The NRC is concerned with the safety of plant and personnel on the utility's site and not with non-nuclear activities on land adjacent to the plant.

Paragraph 50.72(b)(1)(iv) [encompassing events previously classified as "Unusual Events"] requires the reporting of:

"Any event which results or should have resulted in Emergency Core Cooling System (ECCS) discharge to the vessel as a result of a valid signal."

This paragraph is intended to capture those events that result in either automatic or manual actuation of the ECCS or would have resulted in activation of the ECCS if some component had not failed or an operator action had not been taken.

One example of such an event would be if a valid ECCS signal were generated by plant conditions, and the operator put all ECCS pumps in pull-to-lock. Even though no ECCS discharge occurred, the event would be reportable.

A "valid signal" refers to the actual plant conditions or parameters satisfying the requirements for ECCS initiation. Excluded from this reporting requirement would be those instances where instrument drift, spurious signals, human error, or other invalid signals caused ECCS. However, such events may be reportable under other of sections of the Commission's regulations based upon other details of the event. In particular, paragraph 50.72(b)(2)(ii) would require a report within four-hours if an Engineered Safety Feature (ESF) were actuated.

Experience with notifications made pursuant to §50.72 has shown that events involving ECCS discharge to the vessel are generally more serious than ESF

actuations without discharge to the vessel. Based on this experience, the Commission has made this reporting criterion a "One-Hour Report."

Paragraph 50.72(b)(1)(v) [encompassing events previously classified as Unusual Events] requires reporting of:

"Any event which results in major loss of emergency assessment or communications capability (e.g., significant portion of control room indication, Emergency Notification System").

This reporting requirement is intended to capture those events that would impair a licensee's ability to deal with an accident or emergency. Notifying the NRC of these events may permit the NRC to take some compensating measures and to more completely assess the consequences of such a loss should it occur during an accident or emergency.

Paragraph 50.72(b)(1)(vi) [encompassing some portions of the proposed §§50.72(b)(2), (6) and (8)] requires the reporting of:

"Any event that threatened the safety of the nuclear power plant or significantly hampered site personnel in the performance of duties necessary for the safe operation of the nuclear plant including fires, toxic gases or radioactive releases." Adding the phrase "including toxic gases or radioactive releases" to paragraph 50.72(b)(1)(vi) of the final rule covers paragraph 50.72(b)(8) of the proposed rule and the "evacuation" portion of paragraph 50.72(b)(6)(iii) of the proposed rule. Since public comment was critical of this "evacuation" reporting criterion in the proposed rule, the staff made this change in wording for the final rule.

While paragraph 50.72(b)(1)(iii) of the final rule primarily captures acts of nature, paragraph 50.72(b)(1)(vi) captures other events, particularly acts by personnel. The Commission believes this arrangement of the reporting criteria

in the final rule lends itself to more precise interpretation and is consistent with those public comments that requested closer coordination between the reporting requirements in this rule and other portions of the Commission's regulations.

This reporting requirement is intended to capture those events, particularly those caused by acts of personnel which endanger the safety of the plant or interface with personnel in performance of duties necessary for safe plant operations.

Nevertheless, the licensee must exercise some judgment in reporting under this section. For example, a small fire on site that did not endanger any plant equipment, that did not and could not reasonably be expected to endanger the plant is not reportable.

Paragraph 50.72(b)(2) requires that:

"If not reported under paragraph (a) on (b)(1) of this section, the licensee shall notify the NRC as soon as possible and in all cases, within four hours of the occurrence of any of the following:"

Although the reporting criteria contained in the subparagraphs that follow were in the proposed rule, public comment prompted the Commission to establish this "Non-Emergency" category for those events with slightly less urgency and less safety significance that may be reported within 4 hours instead of 1 hour.

The rationale for not permitting reporting later than four hours is that the Commission wants to obtain such reports from personnel who were on shift at the time of the event when this is possible, because the personnel on shift at the time of the event will have a better knowledge of the circumstances associated with the event.

Paragraph 50.72(b)(2)(i) [encompassing some events captured by proposed 50.72(b)(1)] requires reporting of:

"Any event, found while the reactor is shutdown, that, had it been found while the reactor was in operation, would have resulted in the nuclear power plant, including its principal safety barriers, being seriously degraded or in an unanalyzed condition that significantly compromises plant safety".

Based upon public comments that requested close coordination be established between §50.72 and other rules, this reporting requirement is similar to a requirement in §50.73. Except for referring to a shutdown reactor, this reporting requirement is similar to an "One-Hour Report" in §50.72(b)(1)(ii). Because this refers to a shut down reactor, events captured by this requirement have less urgency and can be reported within four hours as a "Non-Emergency." Paragraph 50.72(b)(1) of the proposed rule was split into 50.72(b)(1)(ii) and 50.72(b)(2)(i) in the final rule in order to permit some type of reports to be made within four hours instead of 1 hour, because these reports have less safety significance. In terms of their combined effect, the overall intent and scope of these paragraphs has not changed from that in the proposed rule. Since the types of events intended to be captured by this reporting requirement are similar to §50.72(b)(1)(ii) except that the reactor is shutdown, the reader should refer to the explanation of §50.72(b)(1)(ii) for more details on intent.

Paragraph 50.72(b)(2)(ii) [proposed 50.72(b)(5)] requires reporting of:

"Any event or condition resulting in manual or automatic actuation of any Engineered Safety Feature (ESF), including the Reactor Protection System (RPS). However, actuation of an ESF, including the RPS, that resulted from and was part of the preplanned sequence during testing or reactor operation need not be reported."

In response to public comments, this reporting requirement has been made a "Non-Emergency" because the Commission agrees with the commenters that events captured by this requirement generally have slightly less urgency and safety significance than those events included in the "One-Hour Reports" paragraphs. The intent and scope of this reporting requirement have not changed from that in the proposed rule.

This paragraph is intended to capture events during which an ESF actuates, either manually or automatically, or fails to actuate. It is based on the premise that the ESFs are provided to mitigate the consequences of the event; therefore, (1) they should work properly when called upon and (2) they should not be challenged unnecessarily. The Commission is interested both in events where an ESF was needed to mitigate the consequences of the event (whether or not the equipment performed properly) and events where an ESF operated unnecessarily.

"Actuation" of multichannel ESF Actuation Systems is defined as actuation of enough channels to complete the minimum actuation logic. Therefore, single channel actuations, whether caused by failures or otherwise, are not reportable if they do not complete the minimum actuation logic.

Operation of an ESF as part of a planned test or operational evolution need not be reported. However, if during the test or evolution the ESF actuates in a way that is not part of the planned procedure, that actuation should be reported. For example, if the normal reactor shutdown procedure requires that the control rods be inserted by a manual reactor trip, the reactor trip need not be reported. However, if conditions develop during the shutdown that require an automatic reactor trip, such a reactor trip should be reported. The fact that the safety analysis assumes that an ESF will actuate automatically

during an event does not eliminate the need to report that actuation. Actuations that need not be reported are those initiated for reasons other than to mitigate the consequences of an event (e.g., at the discretion of the licensee as part of a planned procedure).

Paragraph 50.72(b)(2)(iii) and (iv) [proposed 50.72(b)(4)] requires reporting of:

"Any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to:

(i) Shut down the reactor and maintain it in a safe condition,

(ii) Remove residual heat,

(iii) Control the release of radioactive material, or

(iv) Mitigate the consequences of an accident.

Events covered in §50.72(b)(2)(iii) of this part may include one or more personnel errors, equipment failures, and/or discovery of design, analysis, fabrication, construction, and/or procedural inadequacies. However, individual component failures need not be reported pursuant to this paragraph if redundant equipment in the same system was operable and avialble to perform the required safety function."

In response to public comments, the words "any instance of personal error, equipment failure, or discovery of design or procedural inadequacies" that appeared in the proposed rule have been replaced by the words "event or condition". This simplification in language is intended to clarify what was a confusing phrase to many of those who commented on the proposed rule. Also in response to public comment, this reporting requirement is a "Non-Emergency" to be reported within four hours instead of within one hour.

This reporting requirement is similar to one contained in §50.73, thus reflecting public comment identifying the need for closer coordination of reporting requirements between §50.72 and §50.73.

In summary, the wording of this paragraph has been changed to make it easier to understand, while the intent and scope of the paragraph have not been changed. This paragraph is based on the assumption that safety-related systems and structures are intended to mitigate the consequences of an accident. While paragraph 50.72(b)(2)(ii) applies to actual demands for actuation of an ESF, paragraph 50.72(b)(2)(iii) covers an event where a safety system could have failed to perform its intended function because of one or more personnel errors, including procedure violations; equipment failures; or design, analysis, fabrication, construction, or procedural deficiencies. The event should be reported regardless of the situation or condition that caused the structure or system to be unavailable.

The applicability of paragraph includes those safety systems designed to mitigate the consequences of an accident (e.g., containment isolation, emergency filtration). Hence, minor operational events such as valve packing leaks, which could be considered a lack of control of radioactive material, should not be reported under this paragraph. System leaks or other similar events may, however be reportable under other paragraphs.

This paragraph does not include those cases where a system or component is removed from service as part of a planned evolution, in accordance with an approved procedure, and in accordance with the plant's Technical Specifications. for example, if the licensee removes part of a system from service to perform maintenance, and the Technical Specifications permit the resulting configuration,

and the system or component is returned to service within the time limit specified in the Technical Specifications, the action need not be reported under this paragraph. However, if, while the component is out of service, the licensee identifies a condition that could have prevented the system from performing its intended function (e.g., the licensee finds a set of relays that is wired incorrectly), that condition must be reported.

It should be noted that there are a limited number of single-train systems that perform safety functions (e.g., the High Pressure Coolant Injection System in BWRs). For such systems, loss of the single train would prevent the fulfillment of the safety function of that system and, therefore, must be reported even though the plant Technical Specifications may allow such a condition to exist for a specified length of time.

It should also be noted that, if a potentially serious human error is made that could have prevented fulfillment of a safety function, but recovery factors resulted in the error being corrected, the error is still reportable.

The Commission recognizes that the application of this and other paragraphs of this section involves the use of engineering judgment on the part of licensees. In this case, a technical judgment must be made whether a failure or operator action that disabled one train of a safety system and could have, but did not, affect a redundant train. If so, this would constitute an event that "could have prevented" the fulfillment of a safety function, and, accordingly, must be reported.

If a component fails by an apparently random mechanism it may or may not be reportable if the functionally redundant component could fail by the same mechanism. To be reportable, it is necessary that the failure constitute a condition where there is reasonable doubt that the functionally redundant

train or channel would remain operational until it completed its safety function or is repaired. For example, if a pump fails because of improper lubrication, and engineering judgment indicates that there is a reasonable expectation that the functionally redundant pump, which was also improperly lubricated, would have also failed before it completed its safety function, then the failure is reportable and the potential failure of the functionally redundant pump must be discussed in the LER.

Interaction between system, particularly a safety system and a non-safety system, is also included in this criterion. For example, the Commission is increasingly concerned about the effect of a loss or degradation of what had been assumed to be non-essential inputs to safety systems. Therefore, this paragraph also includes those cases where a service (e.g., heating, ventilation, and cooling) or input (e.g., compressed air) which is necessary for reliable or long-term operation of a safety system is lost or degraded. Such loss or degradation is reportable if the proper fulfillment of the safety function is not or can not be assured. Failures that affect inputs or services to systems that have no safety function need not be reported.

Finally the Commission recognizes that the licensee may also use engineering judgment to decide when personnel actions could have prevented fulfillment of a safety function. For example, when an individual improperly operates or maintains a component, he might conceivably have made the same error for all of the functionally redundant components (e.g., if he incorrectly calibrates one bistable amplifier in the Reactor Protection System, he could conceivably incorrectly calibrate all bistable amplifiers). However, for an event to be reportable it is necessary that the actions actually affect or involve components in more than one train or channel of a safety system, and the result of the

actions must be undesirable from the perspective of protecting the health and safety of the public. The components can be functionally redundant (e.g., two pumps in different trains) or not functionally redundant (e.g., the operator correctly stops a pump in Train "A" and, instead of shutting the pump discharge valve in Train "A," he mistakenly shuts the pump discharge valve in Train "B").

Paragraphs 50.72(b)(2)(v) and (vi) [proposed 50.72(b)(6)] require reportir

"(i) Any airborne radioactive release that exceeded 2 times the applicabl concentrations of the limits specified in Appendix B, Table II of Part 20 of this chapter in unrestricted areas, when averaged over a time period of one hou

(ii) Any liquid effluent release that exceeded 2 times the limiting combin Maximum Permissible Concentration MPC (see Note 1 of Appendix B to Part 20) of this chapter at the point of entry into the receiving water (i.e., unrestricted area) for all radionuclides except tritium and dissolved noble gas when averaged over a time period of one hour."

Immediate notifications must be made to the Commission in accordance with §50.72(b)(2)(v). These immediate notifications also meet the requirements of §20.403(a)(2) of Part 20 of this chapter."

These paragraphs have been changed to clarify the requirements to report releases of radioactive material. The first of these two paragraphs is similar to §20.403 but places a lower threshold for reporting events at commercial powe reactors. The lower threshold is based on the significance of the breakdown of the licensee's program necessary to have a release of this size, rather than on the significance of the impact of the actual release.

Based upon public comment, the reporting threshold has been changed from "25%" in the proposed rule to "2 times" in the final rule. Also, based on public comment, this has been made as a "Non-Emergency" to be reported within 4-hours instead of within 1 hour.

Also based on public comment, this reporting requirement has been changed to make a more uniform requirement by referring to specific release criteria instead of referring only to Technical Specifications.

This reporting requirement is intended to capture those events that constitute unplanned or uncontrolled releases of a significant amount of radioactive material to offsite areas. Unplanned releases should occur infrequently, however, when they occur, at least moderate defects have occurred in the safety design or operational control established to avoid their occurrence and, therefore, such events should be reported.

Paragraph 50.72(b)(2)(vii) [proposed rule 50.72(b)(7)] requires the reportin of:

"Any event requiring transport of a radioactively contaminated person to an offsite medical facility for treatment."

Three changes have been made to this reporting requirement. One is to eliminate the phrase "occurring onsite" because it is implied by the scope of the rule. The second change is to replace "injury involving radiation" with "radioactively contaminated person." This change was made because of the difficulty in defining injury due to radiation and more importantly because 10 CFR Part 20 captures events involving radiation exposure.

The third change, in response to public comment, was to make this reporting requirement a four-hour notification, instead of one-hour notification.

Paragraph 50.72(b)(2)(viii) [not in proposed rule] requires reporting of:

"Any event or situation related to the health and safety of the public or onsite personnel or protection of the environment and for which a news release is planned or notification to other government agencies has been or will be made.

Such event may include an onsite fatality or release of radioactively contaminated materials." Besides covering some situation such as radioactive releases that warrent NRC attention, this criterion covers those events or situations that would not otherwise warrant NRC attention except for the interest of the news media, other government agencies, or the public. In terms of its effect on licensees, this is not a new reporting requirement because the threshold for reporting injuries and radioactive releases was much lower under the proposed rule. This criterion will capture those events previously reported under other criteria when such events require the NRC to respond because of media or public attention.

Paragraph 50.72(c) [proposed 50.72(c)] concerning:

"Followup Notification. With respect to the telephone notifications made under paragraphs (a) and (b) of this section, each licensee, in addition to making the required notification, shall during the course of the event:

(1) Immediately report any further degradation in the level of safety of the plant or other worsening plant conditions including those that require, or initiation of any of the Emergency Classes if such initiation has not been previously declared, or the change from one Emergency Class to another or a termination of the Emergency Class.

(2) Immediately report the results of ensuing evaluations or assessments of plant conditions, the effectiveness of response or protective measures taken, and information related to plant behavior that is not understood.

(3) Maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC."

This paragraph has remained essentially unchanged from the proposed rule, except for addition of the title "Followup Notification" and some renumbering.

This paragraph is intended to provide the NRC with timely notification when an event becomes more serious and additional information or new analyses clarify an event.

This paragraph also permits the NRC to maintain a continuous communications channel because of the need for continuing follow-up information or because of telecommunication problems.

IV REGULATORY ANALYSIS

The Commission has prepared a regulatory analysis on this regulation. The analysis examines the costs and benefits of the Rule as considered by the Commission. A copy of the regulatory analysis is available for inspection and copying for a fee at the NRC Public Document Room, 1717 H Street, NW., Washingto D. C. Single copies of the analysis may be obtained from Eric W. Weiss, Office o Inspection and Enforcement, U. S. Nuclear Regulatory Commission, Washington, D. 20555, Telephone (301) 492-4973.

V PAPERWORK REDUCTION ACT STATEMENT

The information requirements contained in the regulation have been approved by the Office of Management and Budget pursuant to the Paperwork Reduction Act, Pub. L. 96-511(clearance number 3150-0011).

VI REGULATORY FLEXIBILITY CERTIFICATION

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605 (b), the Commission hereby certifies that this regulation will not have a significant economic impact on a substantial number of small entities. This regulatio affects electric utilities that are dominant in their respective service areas

and that own and operate nuclear utilization facilities licensed under Sections and 104b of the Atomic Energy Act of 1954, as amended. The amendments clarify and modify presently existing notification requirements. Accordingly, there is new, significant economic impact on these licensees, nor do the affected full licensees fall within the scope of the definition of "small entities" set forth in the Regulatory Flexibility Act or within the Small Business Size Standards set forth in regulations issued by the Small Business Administration at 13 CFR Part 121.

VII LIST OF SUBJECTS IN 10 CFR PART 50

Antitrust, Classified information, Fire prevent, Intergovernmental relations, Nuclear power plants and reactors. Penalty, Radiation Protection, Reactor siting criteria, Reporting requirements.

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and section 552 and 553 of Title 5 of the United States Code, the following amendments to Title 10, Chapter I, Code of Federal Regulations, Parts 20, 50, and 73 are published as a document subject to codification.

PART 50 - DOMESTIC LICENSING OF
PRODUCTION AND UTILIZATION FACILITIES

1. The authority citation for Part 50 continues to read as follows:

AUTHORITY: Secs. 103, 104, 161, 182, 183, 186, 189, 68 Stat. 936, 937, 948, 953, 954, 955, 956, as amended, sec. 234, 83 Stat. 1244, as amended (42 U.S.C 2133, 2134, 2201, 2232, 2233, 2236, 2239, 2282); secs. 201, 202, 206, 88 Stat. 1242, 1244, 1246, as amended (42 U.S.C. 5841, 5842, 5846), unless otherwise noted

Section 50.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Section 50.78 also issued under sec. 122, 68 Stat. 939 (42 U.S.C. 2152). Sections 50.80-50.81 also issued under sec. 184, 68 Stat. 954, as amended (42 U.S.C. 2234). Sections 50.100-50.102 also issued under sec. 186, 68 Stat. 955 (42 U.S.C 2236).

For the purposes of sec. 223, 68 Stat. 958, as amended (42 U.S.C. 2273), §§50.10(a), (b), and (c), 50.44, 50.46, 50.48, 50.54, and 50.80(a) are issued under sec. 161b, 68 Stat. 948, as amended (42 U.S.C. 2201(b)); §§50.10(b) and (c) and 50.54 are issued under sec. 161i, 68 Stat. 949, as amended (42 U.S.C. 2201(i)); and §§50.55(e), 50.59(b), 50.70, 50.71, 50.72, and 50.78 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. A new paragraph (z) is added to §50.54 to read as follows:

§50.54 Conditions of licenses.

* * * * *

(z) In the case of every utilization facility licensed pursuant to Section 103 or 104 b of the Act, the licensee shall immediately notify the NRC Operations Center of the occurrence of the events specified in §50.72 of this part.

3. Section 50.72 is revised to read as follows:

§50.72 Immediate notification requirements for operating nuclear power reactors.

(a) General Requirements.[1] (1) Each ~~licensee of~~ nuclear power reactor licensee licensed under §50.21(b) or §50.22 of this part shall notify the NRC Operations Center via the Emergency Notification System of: (i) The declaration of any of the Emergency

Erie,
As we discussed on the phone, I suggest you check w/OELD on the need for this §50.54 amendment

[1]Other requirements for immediate notification of the NRC by ~~licensed~~ licensees operating nuclear power reactors are contained elsewhere in this chapter, in particular, §20.403, §50.36, and §73.71.

~~the~~ classes specified in the licensee's approved Emergency Plan;[2] or (ii) of those non-emergency events specified in paragraph (b) of this section. (2) If the Emergency Notification System is inoperative, the licensee shall make the required notifications via commerical telephone service, other dedicated telephone system, or any other method which will ensure that a report is ~~being~~ made as soon as possible to the NRC Operations Center.[3]

(3) The licensee shall notify the NRC immediately after notification of the appropriate State or local agencies and within one hour of the time the licensee declares one of the emergency classes.

When making a report under paragraph (a)(3) of this section,

(4) The licensee shall identify: (i) the emergency class declared, or (ii) either paragraph (b)(1) "One-Hour Report" or paragraph (b)(2) "Four-Hour Report" as the paragraph of this section requiring the (Non-Emergency Events) notification.

(b) Non-Emergency Events. (1) One-Hour Reports. (i) If not reported as a declaration of an emergency class under paragraph (a) of this section, the licensee shall notify the NRC as soon as possible, and in all cases within one hour of the occurrence of any of the following:

(A) ~~(i)~~ The initiation of any nuclear plant shutdown required by Technical Specifications.

(B) ~~(ii)~~ Any event or condition during operation that resulted in the condition of the nuclear power plant, including its principal safety barriers, being seriously degraded; or resulted in the nuclear power plant being:

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[2]These Emergency Classes are addressed in NUREG-0654/FEMA-REP-1 entitled "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants" Rev. 1, November 1980. Copies of NUREG documents are available at the Commission's Public Document Room 1717 H Street, NW, Washington, D. C. 20555. Copies may be purchased from the Government Printing Office. Information on current prices may be obtained by writing the U. S. Nuclear Regulatory Commission, Washington, D. C. 20555. Attention: Publications Sales Manager

[3]Commercial telephone number of the NRC Operations Center is (202) 951-0550.

(1) ~~(A)~~ In an unanalyzed condition that significantly compromises plant safety;

(2) ~~(B)~~ In a condition that was outside the design basis of the plant; or

(3) ~~(C)~~ In a condition not governed by the plant's operating and emergency procedures.

(C) ~~(iii)~~ Any natural phenomenon or other external condition that posed an actual threat to the safety of the nuclear power plant or significantly hampers site personnel in the performance of duties necessary for the safe operation of the plant.

(D) ~~(iv)~~ Any event which results or should have resulted in Emergency Core Cooling System (ECCS) discharge to the vessel as a result of a valid signal.

(E) ~~(v)~~ Any event which results in a major loss of emergency assessment or communications capability (e.g., significant portion of control room ~~indication~~ indicators, Emergency Notification System, etc.).

(F) ~~(vi)~~ Any event that threatened the safety of the nuclear power plant or significantly hampered site personnel in the performance of duties necessary for the safe operation of the nuclear power plant including fires, and toxic gas, or radioactive releases.

(2) Four-Hour Reports. (i) If not reported under paragraphs (a) or (b)(1) of this section, the licensee shall notify the NRC as soon as possible and in all cases, within four hours of the occurrences of any of the following:

(A) ~~(i)~~ Any event, found while the reactor is shutdown, that, had it been found while the reactor was in operation, would have resulted in the nuclear power plant, including its principal safety barriers, being seriously degraded or in an unanalyzed condition that significantly compromises plant safety.

(B) ~~(ii)~~ Any event or condition that resulted in manual or automatic actuation of any Engineered Safety Feature (ESF), including the Reactor Protection System (RPS). However, actuation of an ESF, including the RPS, that resulted from and

was part of the preplanned sequence during testing or reactor operation need not be reported.

(C) ~~(iii)~~ Any event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to:

(1) ~~(A)~~ Shut down the reactor and maintain it in a safe shutdown condition,

(2) ~~(B)~~ Remove residual heat,

(3) ~~(C)~~ Control the release of radioactive material, or

(4) ~~(D)~~ Mitigate the consequences of an accident.

(c) ~~(iv)~~ Events covered in ~~§50.72~~ paragraph (b)(2) ~~(i)~~ (C) ~~(iii)~~ of this ~~part~~ section may include one or more personnel errors, equipment failures, and/or discovery of design, analysis, fabrication, construction, and/or procedural inadequacies. However, individual component failures need not be reported ~~pursuant to this~~ under (b)(2)(i)(C) of this section paragraph if redundant equipment in the same system was operable and available to perform the required safety function.

move redesignated paragraph (c) above to next page as indicated

(D) ~~(v)~~ (1) ~~(A)~~ Any airborne radioactive release that exceeded 2 times the applicable concentrations of the limits specified in Appendix B, Table II of Part 20 of this chapter in unrestricted areas, when averaged over a time period of one hour. (2) ~~(B)~~ Any liquid effluent release that exceeds 2 times the limiting combined Maximum Permissible Concentration (MPC) (see Note 1 of Appendix B to Part 20 of this chapter) at the point of entry into the receiving water (i.e., unrestricted area) for all radionuclides except tritium and dissolved noble gases, when averaged over a time period of one hour.

~~(vi) Immediate notifications must be made to the Commission in accordance with §50.72(b)(2)(v).~~ These immediate notifications made under this paragraph also meet the requirements of §20.403(a)(2) of Part 20 of this chapter.

(E) ~~(vii)~~ Any event requiring the transport of a radioactively contaminated person to an offsite medical facility for treatment.

(F) ~~(viii)~~ Any event or situation related to the health and safety of the public or onsite personnel or protection of the environment and for which a news release is planned or notification to other government agencies has been or will be made. ~~Such~~ These events may include an onsite fatality on inadvertent release of radioactively contaminated materials.

insert paragraph (c) here from previous page

(d) ~~(c)~~ Followup Notification. (1) With respect to the telephone notifications made under paragraphs (a) and (b) of this section, each licensee shall during the course of the event:

~~(1)~~ (i) Immediately report any further degradation in the level of safety of the plant or other worsening plant conditions including those that require, or the declaration ~~initiation~~ of any of the Emergency Classes if such a declaration ~~initiation~~ has not ~~been~~ previously been made ~~declared~~, in event of a or the change from one Emergency Class to another, in the event of or a termination of ~~the~~ an Emergency Class.

(ii) ~~(2)~~ Immediately report: (A) the results of ensuing evaluations or assessments of plant conditions, (B) the effectiveness of response or protective measures taken, and (C) information related to plant behavior that is not understood.

(iii) ~~(3)~~ Maintain an open, continuous communication channel with the NRC Operations Center upon request by the NRC.

Dated at Washington, D.C., this day of 198 .

For the Nuclear Regulatory Commission

Samuel J. Chilk Secretary of the Commission

REGULATORY ANALYSIS

(§50.72)

OBJECTIVE

The objective of the revised Immediate Notification System described in 10 CFR 50.72, "Immediate Notification Requirements for Operating Nuclear Power Reactors" is to enhance the safety of nuclear plants by providing for timely notification to the NRC should safety significant events occur at operating nuclear reactors.

BACKGROUND

The existing provisions of 10 CFR 50.72 have generated basically three types of problems. One problem is that certain safety significant events are not required to be reported. A second problem is that certain events which are insignificant from the perspective of protecting the public health and safety are required to be reported. The third, and perhaps most important problem, is that existing reporting requirements are not coordinated. For example, 10 CFR 50.73, the new "Licensee Event Report" rule, and the existing 10 CFR 50.72 do not use similar terminology, phrasing, or reporting thresholds.

In addition to the reporting problem noted above, special consideration must also be given to Section 201 of the Nuclear Regulatory Commission Authorization Act for Fiscal Year 1980 (Pub. L. 96-295). The intent of Congress, as expressed in that law, was that the Commission establish specific guidelines for identifying accidents which could result in an unplanned release of radioactivity in excess of allowable limits and to require immediate notification of these incidents. ~~The~~ This revision of §§50.54 and §50.72 is consistent with the intent of Congress as expressed in the Authorization Act for Fiscal Year 1980.

The NRC published a proposed rule in the Federal Register on December 21, 1981 (46 FR 81894) and subsequently received twenty letters of public comment.

These letters were generally supportive of the proposed revision of 10 CFR 50.72 and these letters were most useful in the development of this final rule.

ALTERNATIVES

At the outset of this rulemaking, a wide variety of regulatory alternatives was considered. One alternative that was rejected was the possibility of simply revising 10 CFR 50.72 without regard for coordination with other reporting requirements. The need for coordination with other provisions of 10 CFR, most notably the new LER system (10 CFR 50.73), resulted in the selection of the approach defined in the final rule. Each of the reporting criteria adopted in the final rule was selected from a range of possible alternatives and each was considered carefully, usually by a committee representing the various elements of the NRC staff familiar with the ~~regained~~ required information and how the information could be collected from licensees in the least burdensom manner through a particular reporting requirement.

The three alternatives for revising the reporting format of the requirements currently contained in §50.72 ~~are~~ were:

1. ~~H~~ Have approximately the same number of reports;
2. ~~R~~ Reduce the number of reports; or
3. ~~I~~ Increase the number of reports.

Alternative 1 would ~~impose~~ maintain the ~~same~~ existing burden on the licensees ~~but would permit~~ while revising the reporting criteria ~~to be revised~~ in order to enchance clarity and increase the usefulness of the notifications obtained.

Alternative 2 would reduce the burden on licensees but would also reduce the ability of the NRC to have early notification of less significant events that might develop into serious accidents. One of the reasons for ~~having~~ the reporting criteria ~~as they are now~~ is to have precursor events telephoned ~~into~~ to the NRC so the Commission ~~that it~~ can be prepared for the occurrence of more serious events ~~ready should these precursors become worse~~.

Alternative 3 is unwarranted because improvements can be made at the present level of reporting by eliminating unnecessary notifications and substituting more useful notifications. There is no ~~compelling~~ reason ~~for~~ to increase ~~in~~ the ~~number of reports~~ current level of reporting.

Consequently, alternative 1 was selected.

BENEFITS AND COSTS

The NRC staff weighed the costs and benefits associated with revising 10 CFR 50.72. The optimum benefit is derived by revising both 10 CFR 50.72 and related portions of other reporting requirements. Accordingly, revision of 10 CFR 50.72 is being coordinated with development of new 10 CFR 50.73. In addition, a number of substantive or administrative changes are being developed that will amend other sections of 10 CFR Parts 50, Part 20, and Part 21.

The value of revising 10 CFR 50.72 goes beyond dollar benefits. The capability of the NRC to make timely decisions and to provide adequate assurances regarding actual or potential threats to public health and safety depends heavily on the rapidity with which significant events occurring at nuclear power power plants are communicated by nuclear power reactor licensees to NRC. The majority of events occurring tnroughout the nuclear industry pose little or no serious or immediate threats to the public health and safety; however, certain events do pose such threats or generate fear or unusual concern.

The NRC has an obligation to collect facts quickly and accurately; ~~about significant events,~~ assess the facts; take necessary action; and inform the public about the extent of the threat, if any, to public health and safety when significant events occur. Not only must NRC act promptly to prevent or minimize injury to the public, it must also take appropriate action to alleviate fear or concern created as a result of ~~such~~ the occurrence of Significant events.

The staff expects that there will be little significant additional costs to the NRC or to licensees associated with the ~~effective~~ final rule changes. ~~However, the staff would like to point out~~ The costs that ~~have been~~ are associated with establishing and implementing a "prompt notification system." These costs are 6 man-years per year of NRC staff effort for manning the telephones for notification and $1.5 million per year for dedicated telephone lines to each operating commercial power reactor facility.

Other Government Agencies

Improvements to the immediate notification requirements would contribute to improved State and local emergency response around nuclear power reactors.

Applicant agencies (e.g., TVA, DOE) would be affected as presented under Section 1.3.3 below.

Industry

There should be little additional cost to the industry associated with implementing the final rule ~~changes additional~~ in addition to those incurred in order to comply with NRC's current emergency preparedness regulations.

The present cost of reporting under §50.72 for the entire industry is estimated to be $46,000 per year exclusive of the costs incurred in order to comply with NRC's emergency preparedness regulations. ~~This~~ The basis of this cost estimate is as follows:

The person ~~make~~ making the notification pursuant to §50.72 is usually the shift supervisor who is a licensed senior reactor operator, ~~who~~ and taking into account ~~his~~ the salary, cost of training, and overhead, ~~his~~ the person's time is worth approximately $100 per hour.

Avoid sexist language where possible

Each telephone notification to the NRC Operations Center pursuant to §50.72 ~~take~~ lasts on average about 15 minutes, although most notifications take less time and a few take much more time.

The NRC Operations Center typically receives 5 telephone notifications pursuant to §50.72 per day.

A computation at the present cost to the industry is:

$$(5 \frac{\text{calls}}{\text{day}}) \times (\frac{1}{4} \frac{\text{hours}}{\text{call}}) \times (365 \frac{\text{days}}{\text{year}}) \times 100 \frac{\text{dollars}}{\text{hour}} = \$45,625$$

The NRC staff estimates that if the final rule ~~If the revised §50.72~~ is promulgated, the cost of reporting will ~~is estimated to~~ remain unchanged. A survey of 179 event-oriented telephone notifications made to the NRC Operations Center during January 1983 ~~showed.~~ yielded the following results:

95 were reports by licensees which ~~reactors~~ would still be reported under the revised §50.72.

67 were reports which would not be required by the revised §50.72.

11 were courtesy calls and other calls made by ~~reactors~~ licensees but were not required by §50.72.

6 were courtesy calls and other calls requesting assistance regarding events not related to power reactors.

---

179 - total event-oriented calls.

This suggests that under the revised §50.72 there would be an approximate ~~ly~~ 41% ($\frac{67}{95+67}$) reduction in the number of reports. ~~made pursuant to §50.72.~~ However, a small countervailing increase in reporting could be expected from ~~such~~ new reporting criteria such as "loss of emergency

assessment or communications capability" (50.72 (b)(1)(v)) and "news release or notification to other government agencies" (50.72(b)(2)(viii)).

Public

Improvements to the immediate notification requirements would provide increased confidence that the health and safety of the public would be better protected during a radiological emergency because the State and local governments would be better informed.

Decision on the Action

Since the final rule reflects many of public comments, and should improve the public health and safety, the final rule changes should be published in the Federal Register to become effective within 60 days of the date of publication.

SPECIFICATION OF CRITERIA

~~Before changes to the proposed rule suggested by public comment were made, a number of letters of public comments found the revised 50.72 to be an improvement.~~ Many of the provisions ~~The changes~~ adopted for promulgation in the final rule reflect ~~many~~ the changes recommended by public ~~comment~~ in response to publication of the proposed rule for comment.

The revised 50.72 should be a substantial improvement in terms of:

Clarity

The final rule clearly and explicitly includes reporting criteria for events that were previously described by examples in NUREG-0654.

Order

The order of the criteria in the final rule has changed from that in the proposed rule. ~~By~~ Through reorganization of the criteria in the final rule, improvements ~~can be~~ were made ~~in~~ with regard to consistency ~~between~~ with similar criteria in new 10 CFR 50.73.

~~The final rule incorporates many of the same types of reporting criteria used in 10 CFR 50.73.~~

Report timing

~~Both the proposed and final rules incorporate~~ The final rule, like the proposed rule, contains a provision that requires ~~them~~ licensees to notify the NRC "as soon as possible and in all cases within one hour of the occurrence." In addition, the final rule incorporates a provision for reporting some occurrences within 4 hours instead of 1 hour. This is permitted because occurrences satisfying some of the criteria reflect less serious or less immediate safety significance. The 1 hour reports are covered by ~~Section~~ § 50.72 (b)(1) of the final rule and the 4 hour reports are covered by ~~Section~~ § 50.72 (b)(2) of the final rule.

FINAL DECISION

Based on the comments received on the proposed rule, and on its own assessment of the utility and the Commission impact of this rule, the ~~staff~~ has concluded that the revised 10 CFR 50.72: will (1) not place an unacceptable burden on the licensees, (2) will have significant safety benefits for the public, (3) will reduce the reporting burden on licensees, and (4) will increase the effectiveness of the Immediate Notification System.

Therefore, the ~~staff~~ Commission concludes that ~~10 CFR 50.72~~ the final rule should be promulgated.

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