

# **UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION**

**Title:** AFFIRMATION/DISCUSSION AND VOTE

**Location:** Rockville, Maryland

**Date:** Friday, May 27, 1988

**Pages:** 1 - 2

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**Ann Riley & Associates**

*Court Reporters*

1625 I Street, N.W., Suite 921

Washington, D.C. 20006

(202) 293-3950

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1 UNITED STATES OF AMERICA  
2 NUCLEAR REGULATORY COMMISSION

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4 AFFIRMATION/DISCUSSION AND VOTE

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7 PUBLIC MEETING

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9 Nuclear Regulatory Commission  
10 One White Flint North  
11 Rockville, Maryland

12  
13 Friday, May 27, 1988  
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15 The Commission met in open session, pursuant to  
16 notice, at 10:00 a.m., the Honorable LANDO W. ZECH, Chairman of  
17 the Commission, presiding.

18 COMMISSIONERS PRESENT:

19 LANDO W. ZECH, Chairman of the Commission  
20 THOMAS M. ROBERTS, Member of the Commission  
21 KENNETH ROGERS, Member of the Commission  
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1 STAFF AND PRESENTERS SEATED AT THE COMMISSION TABLE:

2 A. BATES

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## P R O C E E D I N G S

[10:00 a.m.]

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CHAIRMAN ZECH: Good morning, ladies and gentlemen.

This is an affirmation session. We have one item before us this morning. Before I ask the Secretary to walk us through this item, do any of my fellow Commissioners have any comments to make?

[No response.]

CHAIRMAN ZECH: If not, Mr. Secretary, will you proceed, please?

MR. BATES: Mr. Chairman, the item this morning is SECY-88-102, the Final Backfit Rule. The Commission is being asked to approve a final rule which conforms the Commission's Backfit Rule with the August 4, 1987 decision of the U. S. Court of Appeals for the District of Columbia Circuit.

All Commissioner's have approved the Rule, which was circulated to you yesterday. Some modifications to the rule proposed by Chairman Zech, Commissioner's Roberts and Carr were incorporated.

Will you affirm your votes?

[A chorus of ayes.]

MR. BATES: That is all we have this morning.

CHAIRMAN ZECH: Thank you very much. We stand adjourned.

[Whereupon, at 10:02 a.m., the meeting adjourned.]

**CERTIFICATE OF TRANSCRIBER**

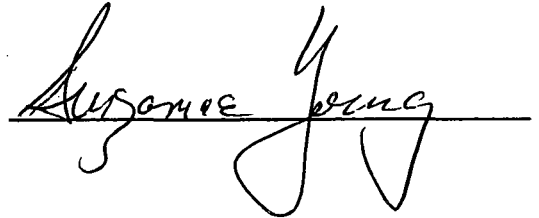
This is to certify that the attached events  
of a meeting of the U.S. Nuclear Regulatory Commission  
entitled:

**TITLE OF MEETING:** For Affirmation, SECY 88-102 Draft Final  
Backfit Rule

**PLACE OF MEETING:** Washington, D.C.

**DATE OF MEETING:** Friday, May 27, 1988

were transcribed by me. I further certify that said  
transcription is accurate and complete, to the best  
of my ability, and that the transcript is a true and  
accurate record of the foregoing events.

A handwritten signature in cursive script, reading "Suzanne Young", is written over a horizontal line.

**Ann Riley & Associates, Ltd.**



## **RULEMAKING ISSUE**

April 18, 1988

**(Affirmation)**

SECY-88-102

**For:** The Commissioners

**From:** William C. Parler  
General Counsel

**Subject:** DRAFT FINAL BACKFIT RULE

**Purpose:** To recommend to the Commission that it issue the attached draft Federal Register notice, which would promulgate a backfit rule which unambiguously conforms to the Atomic Energy Act as interpreted by the Court of Appeals in UCS v. NRC, 824 F.2d 108 (D.C. Cir. 1987).

**Background:** SECY-87-204, which discussed the Court's ruling and recommended issuing a proposed revised rule.

**Coordination:** The EDO's suggested changes have been incorporated and he concurs in proposing this action.

**Discussion:** There are no significant differences between the draft's version of the rule and the proposed rule.

The most detailed comments came from the Union of Concerned Scientists and the Nuclear Utility Backfitting and Reform Group (NUBARG). UCS' comments were virtually identical to its prepared testimony before the Gejdenson committee last October. Comments from both groups centered on the meaning of "adequate protection" and raised issues about this phrase which could have been raised during the rulemaking for the 1985 rule

**Contact:**  
S. Crockett  
x21600

and were to some degree beyond the scope of this rulemaking. Each group is concerned that the phrase will be used against it. We have responded fully to the comments.

The draft response to comments incorporates much of what the NRC told the Gejdenson committee about "adequate protection" and about the NRC's interpretation of the Court's holding. In drafting the response, we have had an eye to the litigation UCS promised during the Gejdenson hearings.

Manual Chapter 0514, on plant-specific backfitting, has been revised some so that it too will clearly be in accord with the Court's holding. The Chapter is presently being further revised to address recommendations made by the Office of Inspector and Auditor. A marked-up copy of the Chapter is attached for information. The copy represents the current state of revision in response to OIA and the completed revisions in response to the Court.

 4/14/88  
William C. Parler  
General Counsel

Attachments:

1. Draft Federal Register Notice
2. Revised Manual Chapter 0514



Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b. Wednesday, May 4, 1988.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT Wednesday, April 27, 1988, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

This paper is tentatively scheduled for affirmation at an Open Meeting during the Week of May 9, 1988. Please refer to the appropriate Weekly Commission Schedule, when published, for a specific date and time.

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ATTACHMENT 1

NUCLEAR REGULATORY COMMISSION

10 CFR PART 50

REVISION OF BACKFITTING PROCESS FOR POWER REACTORS

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission is promulgating an amended rule which governs the backfitting of nuclear power plants. This action is necessary in order to have a backfit rule which unambiguously conforms with the August 4, 1987 decision of the U.S. Court of Appeals for the District of Columbia Circuit in Union of Concerned Scientists, et al., v. U.S. Nuclear Regulatory Commission. This action is intended to clarify when economic costs may be considered in backfitting nuclear power plants. The rule as set out below is substantially the same as the proposed rule, which appeared in the Federal Register on September 10, 1987. See 52 Fed. Reg. 34,223.

EFFECTIVE DATE: [30 days after publication in the Fed. Reg.]

FOR FURTHER INFORMATION CONTACT: Steven F. Crockett, Office of the General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Phone: (301)-492-1600.

SUPPLEMENTARY INFORMATION:

Background

On September 20, 1985, after an extensive rulemaking proceeding which included sequential opportunities for public comment on an

advanced notice of proposed rulemaking (48 Fed. Reg. 44,217, September 28, 1983) and a notice of proposed rulemaking (49 Fed. Reg. 47,034, November 30, 1984), the Commission adopted final amendments to its rule which governs the backfitting of nuclear power plants (50 Fed. Reg. 38,097), 10 CFR § 50.109. Backfitting is defined in some detail in the rule, but for purposes of discussion here it means measures which are directed by the Commission or by NRC staff in order to improve the safety of nuclear power reactors, and which reflect a change in a prior Commission or staff position on the safety matter in question.

Judicial review of the amended backfit rule and a related internal NRC manual chapter which partially implemented it was sought and, on August 4, 1987, the U.S. Court of Appeals for the D.C. Circuit rendered its decision vacating both the rule and the NRC Manual chapter which implemented the rule in part. *UCS v. NRC*, 824 F.2d 103. The Court concluded that the rule, when considered along with certain statements in the rule preamble published in the Federal Register, did not speak unambiguously in terms that constrained the Commission from considering economic costs in establishing standards to ensure adequate protection of the public health and safety as dictated by section 182 of the Atomic Energy Act. At the same time, the Court agreed with the Commission that once an adequate level of safety protection had been achieved under section 182, the Commission was fully authorized under section 161i of the Atomic Energy Act to consider and take economic costs into account in ordering further safety improvements. The Court therefore rejected the position of petitioners in the case, Union of Concerned Scientists, that economic costs may never be a factor in safety decisions under the Atomic Energy Act.

Because the Court's opinion regarding the circumstances in which costs may be considered in making safety decisions on nuclear power plants was completely in accord with the Commission's own policy views on this important subject, the Commission decided not to appeal the decision. Instead, the Commission decided to amend both the rule and the related NRC Manual chapter (Chapter 0514) so that they conform unambiguously to the Court's opinion. On September 10, 1987, the Commission published proposed amendments to the rule (52 Fed. Reg. 34,223) and provided for a comment period ending on October 13, 1987.<sup>1</sup>

In this rulemaking the Commission has adhered to the following safety principle for all of its backfitting decisions. The Atomic Energy Act commands the Commission to ensure that nuclear power plant operation provides adequate protection to the health and safety of the public. In defining, redefining or enforcing this statutory standard of adequate protection, the Commission will not consider economic costs. However, adequate protection is not absolute protection or zero risk. Hence safety improvements beyond the minimum needed for adequate

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<sup>1</sup>In its comments on the proposed amendments, the Union of Concerned Scientists asserts that the Federal Register notice of the proposed amendments was technically defective. UCS argues that since the Court had vacated the entire rule, the Federal Register notice should have proposed enactment of an entire, amended, rule, rather than simply amendments to the vacated rule. In weighing the technical merit of UCS' argument, it should be noted that as of the date of the Federal Register notice, the mandate of the Court had not yet issued and the rule was thus still legally in effect. However, the more important consideration is that the notice clearly revealed the Commission's intent to reissue the backfit rule once it had been conformed to the Court's decision. UCS understood this intent and took the opportunity to resubmit the comments it had submitted during the rulemaking leading up to the 1985 revision of the rule. In any event, the Commission is publishing the entire rule below.

protection are possible. The Commission is empowered under section 161 of the Act to impose additional safety requirements not needed for adequate protection and to consider economic costs in doing so.

The 1985 revision of the backfit rule, which was the subject of the Court's decision, required, with certain exceptions, that backfits be imposed only upon a finding that they provided a substantial increase in the overall protection of the public health and safety or the common defense and security and that the direct and indirect costs of implementation were justified in view of this increased protection. The amended rule set out below restates the exceptions to this requirement for a finding so that the rule will clearly be in accord with the safety principle stated above. Particularly in response to the Court's decision, the rule now provides that if the contemplated backfit involves defining or redefining what level of protection to the public health and safety or common defense and security should be regarded as adequate, neither the rule's "substantial increase" standard, nor its "costs justified" standard, see § (a)(3) of the rule below, are to be applied. See § (a)(4)(iii) of the rule below. Also in response to the Court's decision, see 824 F.2d at 119, the rule now also explicitly says that the Commission shall always require the backfitting of a facility if it determines that such regulatory action is necessary to ensure that the facility provides adequate protection to the health and safety of the public and is in accord with the common defense and security.

On instruction from the Commission, the NRC staff has amended its Manual chapter on plant-specific backfitting to ensure consistency with the Court's opinion. Copies of the revised chapter are available for

public inspection in the Commission's Public Document Room,  
1717 H Street, N.W., Washington, D.C. 20555.<sup>2</sup>

#### Response to Comments

Comments were received from 12 utilities, one Federal agency (DOE), one vendor, seven individuals, seven citizens' groups, and two industry groups. Lengthy and detailed comments were submitted by the Union of Concerned Scientists (UCS) and the Nuclear Utility Backfitting and Reform Group (NUBARG). Both organizations were active in the rulemaking which led to the 1985 revision of the rule. The comments submitted by these two groups encompassed most of the comments made by others. Below, the Commission paraphrases the chief comments and responds to them. The Commission has given careful consideration to every comment. The original comments may be viewed in the NRC's Public Document Room in Washington, D.C.

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<sup>2</sup>Several commenters argue that the revised Manual chapter should undergo what amounts to notice and comment rulemaking. However, the Manual chapter, if it is a rule at all, is a rule of agency organization, procedure, or practice, and therefore is not subject to the notice and comment requirements of the Administrative Procedure Act. See 5 U.S.C. § 553(b)(A); see also § 553(a)(2). The Commission did publish for comment an earlier version of Manual Chapter, see 49 Fed. Reg. 16,900 (April 20, 1984), but that version was already in effect when it was published for comment, and it was published for comment only because the Commission was still in the process of making fundamental changes to the backfitting process and wanted comment on the procedures then in effect. See *id.*

[in italics]"Adequate Protection"

The great majority of the commenters raised issues about the rule's use of the phrase "adequate protection". This phrase is used in the rule's exception provisions. See § (a)(4) below. Generally, the rule requires, among other things, that it be shown for a given proposed backfit that implementation of the backfit would bring about a "substantial increase" in overall protection to public health and safety, and that the direct and indirect costs of the backfit are justified by that substantial increase. See § (a)(3) of the rule, below. However, § (a)(4) of the rule also requires that these two standards not be applied in three situations: first, where the backfit is required to bring a facility into compliance with NRC requirements or the licensee's own written commitments; second, where the backfit is necessary to ensure that the facility provides adequate protection to the health and safety of the public and is in accord with the common defense and security; and third, as noted above, where the backfit involves defining or redefining what level of protection to the public health and safety or common defense and security should be regarded as adequate.

The comments on the rule's use of the phrase "adequate protection" generally took two forms, each discussed more fully later on in this notice. The first form, most fully represented by UCS' comments, was that the rule itself should actually include a definition of "adequate protection" (the final form below does not), a phrase nowhere explicitly defined in general terms, either in the Atomic Energy Act, from which the phrase comes, or in the Commission's regulations.



The second, more modest, form of the comments on "adequate protection", most fully represented by NUBARG's comments, was that one or another of the three exception provisions in the rule was redundant (none is). While not amounting to a call for a definition of "adequate protection", NUBARG's comments displayed some of UCS' uncertainty about what the Commission meant by the phrase.

Each group had difficulty applying the phrase to characterize past Commission action in backfitting. UCS claimed that the Commission had never backfitted in order to achieve something beyond "adequate protection." NUBARG, however, claimed that the Commission had never required a backfit on the grounds that compliance with the regulations was not enough to provide adequate protection. These views, differing in emphasis, reflect the two groups' opposite concerns about the possibility that the Commission would use the phrase "adequate protection" arbitrarily. UCS is concerned that the Commission might use the phrase to refer to a level of safety associated with a relatively high plant risk so that every proposed improvement would be subjected to cost-benefit analysis. Conversely, the industry appears concerned that the Commission might use the phrase to refer to a level of risk so low that no proposed improvement would be subjected to cost-benefit analysis.

The Commission certainly did not intend that this rulemaking should focus on the meaning of the phrase "adequate protection". The main point of this rulemaking was simply to negate the misimpression left by two statements in the preamble to the 1985 version of the backfit rule. UCS puts forward two grounds for its emphasis on the phrase "adequate protection". First, UCS asserts that "[t]he crucial decision as to

whether cost benefit analysis will be used in assessing the need for backfitting is dependent on whether the particular backfitting under consideration is needed to ensure adequate safety ... ." Second, UCS claims that the Court "ordered" the Commission to "stop trying to obscure its intentions through ambiguous and vague language ... ."

However, as will be explained more fully below, the Court's decision turned not on the rule's lack of a definition of "adequate protection" but rather on two statements which seemed to the Court to imply that the Commission intended to take costs into consideration in determining what "adequate protection" required; the meaning of "adequate protection" was simply not an issue in the litigation. Moreover, UCS overestimates the role the phrase "adequate protection" plays in the backfit rule. The threshold decision in considering a proposed backfit, and very often the only decision that need be made,<sup>3</sup> is not whether adequate protection is at stake but rather whether the facility is in compliance with the Commission's requirements and the licensee's written commitments.

Even if UCS is right about the importance of the phrase "adequate protection", there is nothing unusual or imprudent, and certainly nothing illegal, about decisions which ultimately turn on the application -- by duly constituted authority and after full consideration of all relevant information -- of phrases which are not

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<sup>3</sup>For instance, a majority of the plant-specific backfits carried out during the first year after the 1985 revision of the backfit rule became effective were for the sake of compliance. See SECY-86-46, Evaluation of Managing Plant-Specific Backfit Requirements (November 21, 1986), Enclosure 1.

fully defined. Consider, for instance, the "reasonable assurance" determination the Commission must make before issuing an operating license.<sup>4</sup> Indeed, most of the Commission's rules and regulations are ultimately based on unquantified and, as we note below, presently unquantifiable ideas of what constitutes "adequate protection".

Were there something peculiarly critical about the role of "adequate protection" in the backfit rule, the issue of the phrase's meaning could have been raised in the rulemaking for the 1985 rule. Two of the three exception provisions set out above were in the 1985 revision of the rule, where the equivalent phrase "undue risk" was used instead of "adequate protection". Also, as the Court in *UCS v. NRC* noted, 824 F.2d at 119, the statement of considerations which accompanied the 1985 version of the rule quite explicitly at least twice limited the consideration of costs in backfitting decisions to situations where "adequate protection" was already secured.<sup>5</sup>

Nonetheless, an issue which is a concern of almost every commenter in this rulemaking should not be ignored. Therefore, the Commission will answer as best it can the questions the commenters have raised

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<sup>4</sup>"... [A]n operating license may be issued by the Commission ... upon finding that: ... [t]here is reasonable assurance ... that the activities authorized by the operating license can be conducted without endangering the health and safety of the public ... ." 10 C.F.R. § 50.57(a)(3).

<sup>5</sup>"The consideration and weighing of costs contemplated by the rule applies to backfits that are intended to result in incremental safety improvements for a plant that already provides an acceptable degree of protection[.]" 50 Fed. Reg. 38,103, col. 1; also, "[t]he costs associated with proposed new safety requirements may be considered by the Commission provided that the Atomic Energy Act finding 'no undue risk' can be made." *Id.* at 38,101, col. 3.

concerning the rule's use of the phrase "adequate protection". We begin with UCS' call for an objective and generally applicable definition of "adequate protection". We argue that such a definition is not possible in the near future, but that the public and licensees are nonetheless protected against misuse of the phrase. In the course of responding to UCS' comments, we shall, of necessity, be making at least preliminary responses to most of NUBARG's comments also.

UCS argues that the rule permits the agency to escape its legal responsibility to articulate the factors on which it bases its backfitting decisions. UCS asserts that the rule should "enunciate criteria and guidelines about what constitutes redefining and defining adequate protection levels, what constitutes an adequate as opposed to a beyond adequate protection level, and what factors place a particular circumstance within the rule or within the exceptions." Another comment asserts that any definition of "adequate protection" should include the resolution of all outstanding safety issues. Yet another calls for "objective criteria", "some real numbers" on releases, accident consequences, and the like.

There does not exist, and cannot exist, at least not yet, a generally applicable definition of "adequate protection" which would guard against every possible misuse of the phrase. Congress established "adequate protection" as the standard the Commission is to apply in licensing a plant, see 42 U.S.C. § 2232(a), and gave the Commission authority to issue rules and regulations necessary for protection of public health and safety, see 42 U.S.C. § 2201, but Congress did not define "adequate protection", nor did it command the Commission to define it.

Such a definition would have to take one of two forms, one of them incapable of preventing the abuses the commenters are concerned about, and the other simply not possible yet. The first of these would be a verbal definition of the kind encountered in, for instance, the various "reasonable man" standards in the common law. After the pattern of these, the Commission could say, correctly, that "adequate protection" is not zero risk, that it is the same as "no undue risk", that it has long-term and short term aspects, and that it is that level of safety which the Atomic Energy Act requires for initial and continued operation of a nuclear power plant. However, such a definition clearly will not, of itself, prevent the abuses UCS and NUBARG are concerned about, nor is such a standard sufficiently helpful to the NRC staff in actual practice.

Thus, if there is to be a useful and generally applicable definition of "adequate protection", it must take another, more precise form, namely, quantitative. Several of the commenters seem to have such a definition in mind when they call for "objective criteria", some "real numbers", and the like. In fact, the Commission is actively pursuing reliable quantitative measures of safety, and some quantitative and generally applicable definition of "adequate protection" may eventually emerge as a byproduct of the Commission's efforts, still in their early stages, to implement its general safety goals, which take a partly quantitative form. See 51 Fed. Reg. 30,028 (August 21, 1986) (Policy Statement on Safety Goals). However, given the state of the art in quantitative safety assessment, it is not reasonable to expect that the Commission could make licensing decisions -- let alone decisions on whether to consider cost in backfitting -- wholly on a quantitative

definition of "adequate protection". Surprisingly, some of the commenters who call for "objective criteria", "some real numbers", and the like, have in the past criticized quantitative risk assessments.

Nonetheless, even in the absence of a useful and generally applicable definition of "adequate protection", the Commission can still make sound judgments about what "adequate protection" requires, by relying upon expert engineering and scientific judgment, acting in the light of all relevant and material information. As UCS itself said in its comments on the proposed 1985 revision of the rule, "[u]ltimately, the determination of what standards must be met in order to provide a reasonable assurance that the public health and safety will be protected comes down to the reasoned professional judgment of the responsible official."

The Commission's exercise of this judgment will take two familiar forms, of which the most important is rule and regulation. Relying on engineering and scientific judgment, the NRC identifies potential hazards and then requires that designs be able to cope with such hazards with sufficient safety margins and reliable backup systems. Compliance with regulations arrived at in this way is then deemed "adequate protection". Therefore, "adequate protection" is, presumptively, assured by compliance with the NRC's regulations, guidance, and procedures. As the Commission has said on many occasions, compliance with the Commission's regulations and guidance "should provide a level of safety sufficient for adequate protection of the public health and safety and common defense and security under the Atomic Energy Act." 49 Fed. Reg. 47,034, 47,036, col. 2 (November 30, 1984) (proposed 1985 rule); see also 50 Fed. Reg. 38,097, 38,101, col. 3 (September 20, 1985)

(final 1985 rule); 51 Fed. Reg. 30,028, col. 1 (August 21, 1986) (Policy Statement on Safety Goals). An essential point of the Commission's having regulations is to flesh out the "adequate protection" standard entrusted to the Commission by Congress. See *UCS v. NRC*, 824 F.2d at 117-18.

Because "adequate protection" is presumptively assured by compliance with the regulations, all the versions of the backfit rule -- the 1970 rule, the 1985 rule, and the one below, see paragraph (a)(4)(i) -- have a "compliance" exception: plants out of compliance may be backfitted without findings of "substantial increase" in protection or a "justification" of costs.

However -- and here is where the lack of a general definition for "adequate protection" poses a challenge -- "adequate protection" is only presumptively assured by compliance. As the Commission said in promulgating the 1985 revision, the presumption may be overcome by, for instance, new information which indicates that improvements are needed to ensure adequate protection. 50 Fed. Reg. at 38,101, col. 3. Such new information may reveal an unforeseen significant hazard or a substantially greater potential for a known one, or insufficient margins and backup capability. Engineering judgment may, in the light of such information, conclude that restoration of the level of protection presumed by the regulations requires more than compliance. Thus both the 1985 revision and the revision below contain exemptions for backfits necessary to assure "adequate protection", or, as the 1985 rule equivalently said, "no undue risk". See paragraph (a)(4)(ii) of the rule below.

If compliance does not assure adequate protection, the Commission must be able to determine how much more protection is required, and a precise and generally applicable definition of "adequate protection" would facilitate that determination. But such a definition would have only a limited role to play. The first and most crucial question is whether the proposed backfit is required to bring a plant into compliance. Only if the proposed backfit requires more than compliance with NRC regulations and license conditions need there be a determination as to what "adequate protection" requires. Given this relation between compliance and "adequate protection", the industry might be more concerned than UCS is about the lack of a general definition of "adequate protection", for UCS will at least have the comfort of knowing that compliance will be secured before cost is considered, but the industry cannot be sure how much more than compliance may be asked of it despite the cost.

Where, as in the cases contemplated by the second exception provision of the rule, more than compliance is required and quantitative criteria do not define "adequate protection", the agency must fall back on the second familiar form in which engineering judgment is exercised by the Commission, namely, case-by-case. Administrative agencies are not required to proceed by rule alone, for the method of case-by-case judgment is quite capable of meeting the requirement that the factors on which administrative decisions are based be articulated. Rather than proceeding by an almost ministerial application of "objective criteria", the Commission must fashion a series of case-by-case judgments into a well-reasoned and factually well-supported body of decisions which, acting as reasoned precedent, can control and guide the Commission's



exercise of the discretion granted it by Congress in precisely the way in which common-law precedents control and guide the common law judge's exercise of his or her judgment. See *Nader v. Ray*, 363 F.Supp. 946, 954-55 (D.D.C. 1973) (determining what constitutes adequate protection calls for exercise of discretion in a judgmental process very different from acting in accord with a clear, non-discretionary legal duty).

The Commission foresaw the need to proceed case-by-case on occasion and therefore made it a principal aim of the backfit rule to centralize the responsibility for such decisions and document the bases for such decisions. The Commission thereby hoped to better assure that such decisions as might of necessity be case-by-case would form a reasoned and coherent body.<sup>6</sup>

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<sup>6</sup>UCS alleges that in three instances the Commission has abused its discretion by applying cost considerations in specific cases where licensees are in compliance but adequate protection is at stake. However, UCS is misinformed about the first of the three cases, and its allegations about the other two reduce simply to disagreement over what constitutes adequate protection. We briefly discuss the three cases below.

Citing trade journal articles which quote unnamed NRC sources, UCS claims that the backfit rule caused the NRC staff to change its mind about requiring two licensees to conduct certain inspections and analyses in order to justify continued operations. The two plants in question had reactor pump coolant shafts similar to ones which elsewhere had shown a high probability of shearing off under certain conditions. UCS asserts that "[w]e ... learn from this example the inherent lack of logic and circularity embedded in the rule: NRC is prevented, by operation of the rule, from asking questions needed to learn the degree of risk of a known equipment problem because they do not know the answers in advance."

However, the facts of the situations were not what UCS alleges them to have been; indeed the backfit rule was not involved. Letters were sent on April 23, 1986 requiring the licensees to submit within 20 days information which would "enable the Commission to determine whether or not [their] license[s] should be modified." Such information included information on design, operational history, schedules for inspection, plans for operator training, and "any analysis performed subsequent to

[Footnote Continued]

# Nothing in the Court's ruling in UCS v. NRC forbids the

## [Footnote Continued]

those done for the FSAR [Final Safety Analysis Report] which would address the consequences of a locked rotor or broken shaft event during plant operation." These letters were sent under the first part of 10 C.F.R. § 50.54(f). This part authorizes such information requests without consideration of cost. As an earlier draft of the April 23 letter available in the NRC's Public Document Room shows, the NRC had planned to ask for new analyses under a later part of § 50.54(f) which authorizes requests not required to assure adequate protection if "the burden to be imposed ... is justified in view of the potential safety significance of the issue to be addressed in the requested information." 10 C.F.R. § 50.54(f). (This "safety significance" standard, by its emphasis on "potential", requires less than is required by the "[actual] substantial increase" standard in the backfit rule and also avoids the circularity UCS alleges.) However, the staff sensibly opted for first asking whether such analyses had already been done. In fact they had, or were underway when the letters were sent. The backfit rule played no part here.

UCS' second instance of alleged abuse involves the Mark I containment, about whose performance in beyond-design-basis accidents (ones which involve damage to the reactor core) there is substantial uncertainty. UCS asserts that cost considerations have blocked staff action which would have brought about a significant reduction in some of the figures which estimate the probability that the Mark I would fail in certain kinds of beyond-design-basis accidents. UCS adds in passing that those figures represent undue risk. The NRC staff has already made a formal reply to similar charges of undue risk. See, e.g., Boston Edison Co. (Pilgrim Nuclear Generating Station), Interim Director's Decision under 10 C.F.R. § 2.206, DD-87-14, 26 NRC 87, 95-106 (1987). Suffice it here to say that the NRC staff has by no means completed its considerations of the Mark I containment, but that, given present information, the staff has concluded that overall severe-accident risks at plants with Mark I containments are not undue. *Id.* at 104-106. UCS is content to put forward only unsupported assertions to the contrary. Thus the staff may legitimately consider cost when deciding whether to backfit the Mark I containments.

UCS' third allegation of abuse rehearses part of its February 10, 1987 § 2.206 Petition to the Commission for immediate action to relieve allegedly undue risks posed by nuclear power plants designed by the Babcock & Wilcox Company. The NRC's Director of Nuclear Reactor Regulation responded fully to the Petition, denying it, on October 19, 1987 (UCS' comments on the proposed backfit rule were submitted on October 13). See Director's Decision Under 10 C.F.R. § 2.206, DD-87-18, 26 NRC \_\_\_\_ (October 19, 1987). The Director concluded that "there are no substantial health and safety issues that would warrant the suspension or revocation of any license or permit for such facilities." Slip Opinion at 63. Simply because UCS disagrees with such conclusions does not mean that the Commission is misusing the "adequate protection" standard.

Commission's approach to "adequate protection". UCS boldly asserts that the proposed rule "completely fail[ed] to comport with the orders and directions of the Court of Appeals in UCS v. NRC", that the Court "could not have been more clear about the defects of the backfit rule", that the proposed revised rule "suffers from the exact same defects" as the one vacated, that, indeed, "the new proposal is even more devoid of objective guidance or criteria ... than was its predecessor."

UCS' criticisms are based on part of a single paragraph in the Court's decision. In pertinent part, that paragraph says, "... In our view, the backfitting rule is an exemplar of ambiguity and vagueness; indeed, we suspect that the Commission designed the rule to achieve this very result. The rule does not explicate the scope or meaning of the three listed 'exceptions'. The rule does not explain the action the Commission will [in italics] take when a backfit falls within one of these exceptions. In short, the rule does not speak in terms that constrain the Commission from operating outside the bounds of the statutory scheme." 824 F.2d at 119.

UCS says that this portion of a paragraph was an "order" by the Court to get the Commission to "stop trying to obscure its intentions through ambiguous and vague language ... ." Whether the Court's language amounts to an "order" or only strong advice, we have followed it. For one thing, the rule explicitly says that backfits falling within the exceptions will be imposed (inexplicably, UCS asserts that the proposed rule did not have this provision). See § (a)(4) below. For another, both in what we have already said, and in what we shall be saying in response to NUBARG's comments on the exceptions provisions, we

shall have explicated the scope and meaning of the three listed exceptions.

However, we have not taken the quoted language of the Court to mean that, after years of making rules and adjudicating cases which ultimately depend on the Commission's judgment about what "adequate protection" requires, the Commission should be obliged to give a mechanically applicable definition of "adequate protection" in order to avoid using the time-honored method of case-by-case, precedent-guided, judgment to implement only a part of the backfit rule. Certainly, the Court never even noted a lack of a general definition of "adequate protection" in the rule, let alone "ordered" the Commission to provide such a definition.

UCS' position lacks all sense of proportion. We must emphasize the core of the Court's decision, rather than get bogged down by transforming a suspicion and a few criticisms of the rule into an order to undertake an unprecedented task of definition:

Reviewing the exceptions in the rule, and various statements in the Federal Register notice accompanying the rule, the Court said, "We conceivably could read the terms of this rule to comply with the statutory scheme we have described above [that is, a scheme in which economic costs can play no part in establishing what adequate protection requires]." *Id.* Moreover, the Court says this despite the lack of any summary, general, "objective" definition of "adequate protection" in the rule.

But the Court then went on to say, "Statements that the Commission has made in promulgating the rule and in defending it before this court, however, disincline us from interpreting the rule in this fashion." *Id.*

Again, it is not the lack of a definition of adequate protection that disinclines the Court from saving the rule, but rather certain statements the Commission had made which seemed to suggest that the Commission might consider economic cost when deciding what adequate protection required.

[in italics] The Three Exceptions

Echoing the Court's remark that the rule "does not explicate the scope or meaning of the three listed 'exceptions'", id., NUBARG "believes that there is a substantial amount of overlap in these exceptions and that they have not been adequately defined or explained in the proposed rule." NUBARG and others representing the industry are concerned that the two exception provisions which use the phrase "adequate protection", see §§ (a)(4)(ii) and (iii) below, may "swallow" the rule. One industry commenter objects to the notion, implied by § (a)(4)(ii), that adequate protection might require more than compliance. Another is concerned that § (a)(4)(iii), the exception which has been added in response to the Court's ruling, might lead to redefinitions of "adequate protection" that would threaten loss of licenses.

To avoid these results, NUBARG and others recommend deleting one of the two exception provisions which use the phrase "adequate protection". NUBARG's choice is § (a)(4)(ii), retained from the 1985 version of the rule, where it used the equivalent phrase, "no undue risk". This section provides that the "substantial increase" and "costs justified" standards will not apply to backfits necessary to provide adequate

protection to public health and safety. NUBARG calls this provision redundant to the exception for backfits required for the sake of compliance, § (a)(4)(i). As was noted above, NUBARG reports that its research has uncovered no case in which the Commission "has recognized that some additional measures not contained in existing requirements are necessary to ensure that a facility continues to meet the current level of adequacy." Two other commenters believe that the exception provision added because of the litigation, § (a)(4)(iii), should be deleted, as being redundant to the provision NUBARG would like to see deleted.

No matter which of the two provisions the commenter would like to see deleted, the commenter would like some restrictions placed on the use of the remaining one. The restriction by far the most frequently proposed is that no action may be taken under the remaining exception provision in the absence of "significant new information or the occurrence of an event which clearly shows" that the action is necessary.

In sum, these commenters either reopen an issue settled in 1985 or they recommend deleting that part of the rule which directly responds to the Court's ruling. We take neither course, for, even putting the 1985 rule and the Court's ruling aside, if either of the two provisions were to be deleted, an essential power of the Commission would remain unimplemented.

First, the exception for backfits necessary to secure adequate protection, § (a)(4)(ii), must be retained, because it must be made clear that Commission action is not to be obstructed by cost considerations in a situation where compliance has indeed proved to be insufficient to secure the level of protection presumed in the rule,

order, or commitment in question. Despite the results of NUBARG's research, such situations have arisen. See, e.g., SECY-86-346, "Evaluation of Managing Plant-Specific Backfit Requirements", November 21, 1986. Accordingly, this exception provision is not redundant to the exception for backfits necessary to restore compliance. Neither is it redundant to the exception for backfits involving the defining or redefining of "adequate protection", for the latter exception assumes some change in the NRC's judgment of what level of protection should be regarded as "adequate".

Retaining § (a)(4)(ii) will not give the Commission the power to proclaim at will that compliance is not enough. As we said in the statement of considerations accompanying the 1985 rule, and have in part reiterated in the response to UCS' comments, the regulations, though they do not define "adequate protection", are presumed to ensure it, and, in the absence of a redefinition of "adequate protection", that presumption can be overcome only by significant new information or some showing that the regulations do not address some significant safety issue. "[I]t may be presumed that the current body of NRC safety regulations provides adequate protection. Where new information indicates that improvements are needed to ensure there is 'no undue risk' on ... a ... basis which the Commission believes to be the minimum necessary, such requirements must be imposed." 50 Fed. Reg. at 38,101-102.

Second, the exception provision for backfits which are necessary under a defining or redefining of "adequate protection", § (a)(4)(iii), must be retained because it must be made clear that, as the Court held, cost may not be a factor in setting the level of protection judged as

"adequate".<sup>7</sup> As NUBARG acknowledges, citing *Power Reactor Development Co. v. International Union of Electrical, Radio and Machine Workers, AFL-CIO*, 367 U.S. 396, 408 (1961), the Commission has both the power to define "adequate protection", and the power to re-define it.<sup>8</sup> Without this last exception provision, it might appear from the rule either that the Commission had no such power or that it was restricted by cost considerations, contrary to the Court's ruling. Nor should this exception provision be limited to situations involving "significant new information", as proposed in several comments.

This last exception may be thought by some to threaten to swallow the backfit rule. We believe, however, that instances of backfits based on a "redefinition" of "adequate protection" will be rare. Moreover, the case-by-case approach which is required in the absence of a general definition of "adequate protection" provides licensees -- and the public -- a large measure of protection from arbitrary action by the Commission. Citing case law, NUBARG says that, in applying this last exception provision, the Commission "must act rationally and consistently in light of available evidence", and "must apply a reasoned analysis indicating the prior policies and standards are being changed,

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<sup>7</sup>As the rule notes in § (a)(7), cost may nonetheless be a consideration in choosing the means of achieving "adequate protection".

<sup>8</sup>The words "defining or redefining" in this third exception should not be construed necessarily to mean "providing a useful and generally applicable definition", at least not until such a definition becomes possible. Under present conditions, the Commission will have "defined or redefined what level of protection is to be regarded as adequate" if it makes a judgment that, although compliance assures the level of protection that had been thought of as adequate, that level of protection should no longer be considered adequate.



not casually ignored ... ." We wholly agree, and believe that the approach envisioned by the backfit rule will facilitate the Commission's acting accordingly.

[in italics]Other Matters

Two other comments bearing on the phrase "adequate protection" require an explicit response. First, several commenters from the industry would prefer that the rule state that the "documented evaluation" which the NRC must prepare in connection with any action under one of the exception provisions, see § (a)(4), should include consideration of as many of the factors which § (c) requires of a "backfit analysis" as are appropriate.

The suggested modification of the rule would have only limited utility. Few of the factors listed in § (c) of the rule are appropriate for consideration in a documented evaluation justifying action under the compliance exception in the rule. It is true that several of the factors in § (c), indeed, all but (5), (7), and part of (8), are appropriate for consideration under the "adequate protection" exception, to the extent that they require a showing of exactly what the licensees must do and a showing that the backfit in question actually contributes to safety. However, the Commission believes that the rule's requirement that the documented evaluation "include a statement of the objectives of and reasons for the modification and the basis for invoking the exception" adequately assures that the factors in § (c) will be considered to the extent relevant, without their being listed and labeled as if they were a part of a § (c) analysis. Thus, little, if

anything, is to be gained by an explicit requirement that § (c) factors be considered in a documented evaluation.

Second, one citizens' group asserts that the backfit rule should not apply to rulemaking. This issue was thoroughly discussed in 1985. However, this group's comment puts the issue in a slightly altered light, and provides another opportunity to clarify the meaning of "adequate protection". The group argues that since rules "define" "adequate protection", the Commission cannot apply the rule's "substantial increase" and "cost justified" standards in rulemaking without applying cost considerations in setting the standard of adequate protection, contrary to the Court's holding.

The answer to this comment is, of course, that the rules do not, strictly speaking, "define" "adequate protection", and they only presumptively assure it. Not only may they, as stated above, sometimes prove to provide less than adequate protection, there will also be times when the NRC issues a rule which requires something beyond adequate protection. This follows directly from the Commission's power under section 161 of the Atomic Energy Act, affirmed by the Court, to issue rules or orders to "minimize danger to life or property." See 42 U.S.C. § 2201; see also *USC v. NRC*, 824 F.2d at 118. If a proposed rule requires something more than adequate protection, applying a cost standard to the proposed rule will not be introducing cost considerations into the setting of the adequate protection standard and is therefore permitted. Of course if the rule is directed at either establishing what level of protection is "adequate" or assuring that such a level of protection is met, then cost will play no role.

The backfit rule as set out below is substantially the same as the rule proposed in the Federal Register. See 52 Fed. Reg. 34,223 (September 10, 1987). Provisions which appeared at the end of § (a)(4) of the proposed rule, or in the footnote to that paragraph, appear below in new subparagraphs of (a), numbered (5) through (7).

#### ENVIRONMENTAL IMPACT: CATEGORICAL EXCLUSION

The NRC has determined that this final rule is the type of action described in categorical exclusion 10 CFR § 51.22(c)(3). Therefore, neither an environmental impact statement nor an environmental assessment has been prepared for this final rule.

#### PAPERWORK REDUCTION ACT STATEMENT

This final rule does not contain a new or amended information collection requirement subject to the Paperwork Reduction Act of 1980 (44 U.S.C. 3501 et seq.). Existing requirements were approved by the Office of Management and Budget, Approval Number 3140-0011.

#### REGULATORY FLEXIBILITY ACT CERTIFICATION

In accordance with the Regulatory Flexibility Act of 1980, 5 U.S.C. 605(b), the Commission hereby certifies that this final rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. The affected facilities are licensed under the provisions of 10 CFR 50.21(b) and 10 CFR 50.22. The companies that own these facilities do not fall within the scope of "small entities" as set forth in the Regulatory Flexibility Act or the

Small Business Size Standards set forth in regulations issued by the Small Business Administration in 13 CFR Part 121.

## LIST OF SUBJECTS

### 10 CFR Part 50

Antitrust, Classified information, Fire prevention, Incorporation by reference, Intergovernmental relations, Nuclear power plants and reactors, Penalty, Radiation protection, Reactor siting criteria, Reporting and Recordkeeping requirements.

For the reasons set out in the preamble and under the authority of the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, and 5 U.S.C. 553, the NRC is adopting the following amendments to 10 CFR Part 50.

1. The authority citation for Part 50 is revised 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).

Section 50.7 also issued under Pub. L. 95-601, sec. 10, 92 Stat. 2951 (42 U.S.C. 5851). Sections 50.58, 50.91, and 50.92 also issued under Pub. L. 97-415, 96 Stat. 2073 (42 U.S.C. 2239). 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), 50.54 and 50.109 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, 50.73, and 50.78 are issued under sec. 161o, 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

2. Section 50.109 is revised to read as follows:

§ 50.109 Backfitting.

(a)(1) Backfitting is defined as the modification of or addition to systems, structures, components, or design of a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct or operate a facility; any of which may result from a new or amended provision in the Commission rules or the imposition of a regulatory staff position interpreting the Commission rules that is either new or different from a previously applicable staff position after:

(i) The date of issuance of the construction permit for the facility for facilities having construction permits issued after October 21, 1985; or

(ii) Six months before the date of docketing of the operating license application for the facility for facilities having construction permits issued before October 21, 1985; or

(iii) The date of issuance of the operating license for the facility for facilities having operating licenses; or

(iv) The date of issuance of the design approval under Appendix M, N, or O of this part.

(2) Except as provided in paragraph (a)(4), the Commission shall require a systematic and documented analysis pursuant to paragraph (c) for backfits which it seeks to impose.

(3) Except as provided in paragraph (a)(4), the Commission shall require the backfitting of a facility only when it determines, based on the analysis described in paragraph (c) of this section, that there is a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit and that the direct and indirect costs of implementation for that facility are justified in view of this increased protection.

(4) The provisions of paragraphs (a)(2) and (a)(3) of this section are inapplicable and, therefore, backfit analysis is not required and the standards in paragraph (a)(3) do not apply where the Commission or staff, as appropriate, finds and declares, with appropriate documented evaluation for its finding, either:

(i) That a modification is necessary to bring a facility into compliance with a license or the rules or orders of the Commission, or into conformance with written commitments by the licensee; or

(ii) That regulatory action is necessary to ensure that the facility provides adequate protection to the health and safety of the public and is in accord with the common defense and security; or

(iii) That the regulatory action involves defining or redefining what level of protection to the public health and safety or common defense and security should be regarded as adequate.

(5) The Commission shall always require the backfitting of a facility if it determines that such regulatory action is necessary to ensure that the facility provides adequate protection to the health and safety of the public and is in accord with the common defense and security.

(6) The documented evaluation required by paragraph (a)(4) shall include a statement of the objectives of and reasons for the modification and the basis for invoking the exception. If immediately effective regulatory action is required, then the documented evaluation may follow rather than precede the regulatory action.

(7) If there are two or more ways to achieve compliance with a license or the rules or orders of the Commission, or with written licensee commitments, or there are two or more ways to reach a level of protection which is adequate, then ordinarily the applicant or licensee is free to choose the way which best suits its purposes. However, should it be necessary or appropriate for the Commission to prescribe a specific way to comply with its requirements or to achieve adequate protection, then cost may be

a factor in selecting the way, provided that the objective of compliance or adequate protection is met.

(b) Paragraph (a)(3) of this section shall not apply to backfits imposed prior to October 21, 1985.

(c) In reaching the determination required by paragraph (a)(3) of this section, the Commission will consider how the backfit should be prioritized and scheduled in light of other regulatory activities ongoing at the facility and, in addition, will consider information available concerning any of the following factors as may be appropriate and any other information relevant and material to the proposed backfit:

(1) Statement of the specific objectives that the proposed backfit is designed to achieve;

(2) General description of the activity that would be required by the licensee or applicant in order to complete the backfit;

(3) Potential change in the risk to the public from the accidental off-site release of radioactive material;

(4) Potential impact on radiological exposure of facility employees;

(5) Installation and continuing costs associated with the backfit, including the cost of facility downtime or the cost of construction delay;

(6) The potential safety impact of changes in plant or operational complexity, including the relationship to proposed and existing regulatory requirements;



(7) The estimated resource burden on the NRC associated with the proposed backfit and the availability of such resources;

(8) The potential impact of differences in facility type, design or age on the relevancy and practicality of the proposed backfit;

(9) Whether the proposed backfit is interim or final and, if interim, the justification for imposing the proposed backfit on an interim basis.

(d) No licensing action will be withheld during the pendency of backfit analyses required by the Commission's rules.

(e) The Executive Director for Operations shall be responsible for implementation of this section, and all analyses required by this section shall be approved by the Executive Director for Operations or his designee.

Dated at Washington, D. C. this      day of      , 1988

For the Commission

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SAMUEL J. CHILK  
Secretary of the Commission

**ATTACHMENT 2**

U.S. NUCLEAR REGULATORY COMMISSION

NRC MANUAL

Volume: 0000 General Administration

Part: 0500 Health and Safety

EDO

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CHAPTER 0514 NRC PROGRAM FOR MANAGEMENT OF PLANT-SPECIFIC  
BACKFITTING OF NUCLEAR POWER PLANTS

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0514-01 COVERAGE

- 011 This chapter establishes the requirements and guidance for NRC staff implementation of 10 CFR 50.109 and the provisions of 10 CFR 50 Appendix O, 10 CFR 50.54(f), and 10 CFR 2.204, relating to plant-specific backfitting. Staff requirements and guidance for implementing the provisions of 10 CFR 50.109 pertaining to rules and other generic backfitting are beyond the scope of this Chapter. Pertinent requirements and guidance for generic backfitting are contained in the CRGR Charter. Test and research reactor licensees are not covered by the provisions of the Chapter.
- 012 This chapter defines the objectives, authorities, and responsibilities and establishes basic requirements for actions to be taken in instances where the NRC staff imposes new plant-specific regulatory staff positions on a nuclear power plant licensee.<sup>1</sup> This practice is commonly referred to as

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<sup>1</sup> See Section 05 of this Chapter for a definition of "licensee."

"backfitting" and for the purposes of this chapter is defined as the modification of or addition to systems, structures, components, or design of a facility; or the procedures or organization required to design, construct or operate a facility; any of which may result from a new or amended provision in the Commission rules or the imposition of a regulatory staff position interpreting the Commission rules that is either new or different from a previously applicable staff position. It should be clearly understood that backfits are expected to occur and are a part of the regulatory process to assure and improve the safety of nuclear power plants. However, it is important for sound and effective regulation that backfitting be conducted in a controlled process. Plant-specific backfitting is different from generic backfitting in that the former involves the imposition on a licensee of positions unique to a particular plant, whereas generic backfitting involves the imposition of the same or similar positions on two or more plants. This chapter governs those plant-specific backfits communicated to the licensees or identified by the licensees after (date of issuance).

- 013 The management of plant-specific backfitting, for which guidance is provided in this document, does not relieve licensees from achieving and maintaining adequate protection of the public health and safety<sup>2</sup> or complying with the Commission's regulations, orders, license, or written licensee commitment. The management process is intended to provide disciplined NRC review of new or changed positions prior to imposing them.

The plant-specific backfit management process will enhance regulatory stability by assuring that changes in regulatory staff positions are in fact required to ensure that the facility provides adequate protection to public health and safety or to provide a substantial increase in the overall protection of the public health and safety or common defense and security. Such plant-specific backfitting is entirely proper given the

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<sup>2</sup> Adequate protection of the public health and safety means the same as no undue risk and reasonable assurance of not endangering public health and safety. In NRC practice these standards are interchangeable.]

agency's responsibility to ensure an adequate level of protection and the agency's authority to improve safety beyond this level.

#### 0514-02 OBJECTIVES

- 021 It is the overall objective of this program to assure that plant-specific backfitting of nuclear power plants is justified and documented and to specify that the Executive Director for Operations is responsible for the proper implementation of the backfit process.
- 022 The specific objectives of this program are (a) to ensure that facilities provide adequate protection of the public health and safety; and (b) to allow for substantial improvements in the levels of protection of public health and safety beyond adequacy while avoiding any unwarranted burdens on the NRC, public or licensees in implementing backfits.
- 023 The program should assure to the extent possible that backfits to be issued will in fact contribute effectively and significantly to the health and safety of the public or the common defense and security. This objective is attained by assuring that plant-specific backfits will be communicated to the licensee only if necessary to provide an adequate level of safety, or after required regulatory analyses are completed and approved as described in Section 0514-042 of this Chapter. The backfit and supporting regulatory analyses are approved by the appropriate Office Director or Deputy Director, or Regional Administrator or Deputy Regional Administrator and forwarded to the Executive Director for Operations before the backfit and appropriate supporting analysis are communicated to the licensee.

#### 0514-03 RESPONSIBILITIES AND AUTHORITIES

- 031 The Executive Director for Operations (EDO) is responsible to the Commission for plant-specific backfit actions. The EDO may review and modify any plant specific backfit decision at his or her initiative or at

the request of a licensee in accordance with Section 044. The EDO may authorize deviations from this Chapter when the EDO finds that such action is in the public interest and the deviation otherwise complies with the applicable regulations.

- 032 The Director, Office for Analysis and Evaluation of Operational Data (AEOD), shall assure that process controls for overall agency management and oversight of the plant-specific backfit process are developed and maintained and shall coordinate the implementation of procedures within the other Offices and Regions. These process controls shall include specific procedures, training, progress monitoring systems, and provisions for obtaining and evaluating both staff and industry views on the conduct of the backfit process. The Director, AEOD, is also responsible for assuring that each licensee is informed of the existence and structure of the NRC program described in this Chapter. The Director, AEOD, shall assure that substantive changes in the Chapter and related procedures are communicated to the licensees.
- 033 The Director, Office of Nuclear Reactor Regulation (NRR), shall assure that an overall procedure for managing plant-specific backfitting that involves positions taken by NRR is developed, implemented, and maintained, in accordance with the Chapter. The overall procedure shall be coordinated with AEOD and approved by the EDO. The Director, NRR, shall consult and coordinate with Regional Administrators and the Office of Nuclear Materials Safety and Safeguards, as appropriate, to develop resolutions of proposed plant-specific backfits in program areas for which NRR has responsibility.

For backfits within NRR's program area of responsibility which are proposed by NRR staff, the Director or Deputy Director, NRR, without further delegation, shall approve the regulatory analysis prior to communicating the backfit and analysis to the licensee. For all backfits within the NRR program area of responsibility which are appealed by a licensee, the Director, NRR, shall make the decision on imposition of the

backfit. The decision is subject to EDO review under Section 0514-031. The Director, NRR, shall assure NRR staff performance in accordance with this Chapter.

- 034 The Director, Office of Nuclear Material Safety and Safeguards (NMSS), shall assure that an overall procedure for managing plant-specific backfitting that involves positions taken by NMSS is developed, implemented, and maintained, in accordance with this Chapter. The overall procedure shall be coordinated with AEOD and approved by the EDO. The Director, NMSS, shall consult and coordinate with Regional Administrators and the Director of the Office of Nuclear Reactor Regulation, as appropriate, to develop resolutions of proposed plant-specific backfits in program areas for which NMSS activities may affect reactor plant licensees.

For backfits within the NMSS program area of responsibility which are proposed by NMSS staff, the Director or Deputy Director, NMSS, without further delegation, shall approve the regulatory analysis prior to communicating the backfit and analysis to the licensee. For all backfits within the NMSS program area of responsibility which are appealed by a licensee, the Director, NMSS, shall make the decision on imposition of the backfit. The decision is subject to EDO review under Section 0514-031. The Director, NMSS, shall assure NMSS staff performance in accordance with this Manual Chapter.

- 035 Regional Administrators shall assure that an overall procedure for managing plant-specific backfitting that involves positions taken by a Region in any program area for which the Region has been delegated authority, is developed, implemented, and maintained, in accordance with the Chapter. The overall procedure shall be coordinated with AEOD and approved by the EDO.

Regional Administrators shall consult and coordinate with the Directors of the Offices of Nuclear Reactor Regulation and Nuclear Material Safety and

Safeguards as appropriate, to identify issues and develop resolutions of proposed plant-specific backfits where such backfitting would result from positions taken by the Region.

For backfits proposed by the Region, the Regional Administrator or Deputy Regional Administrator, without further delegation, shall approve the regulatory analysis prior to communicating the backfit and analysis to the licensee. For backfits proposed by the Region and appealed by the licensee, the Administrator is responsible for the conduct of the appeal process within the Region; however, if agreement cannot be reached at the Regional level, the decision on imposition of the backfit shall be made by the Director of the program office having responsibility for the program area relevant to the backfit. The decision is subject to EDO review under Section 0514-031. Each Regional Administrator shall assure Regional staff performance in accordance with this Chapter.

- 036 The Directors, Offices of Nuclear Reactor Regulation, and Nuclear Material Safety and Safeguards, and Regional Administrators shall approve regulatory analyses initiated by their staff members, who propose backfits within other program office areas of responsibility which have been delegated to them for implementation and decision authority, prior to communicating the backfit and analysis to the licensee.
- 037 The Director, Office of Administration and Resources Management shall, in coordination with the Office Directors, and Regional Administrators, develop and maintain the overall NRC data base management system identified and described in Section 046 of this Chapter.
- 038 NRC staff positions may be identified as potential backfits either by NRC staff or by persons who are not members of the NRC staff. Such identifications will be considered by the Office Director/Administrator having responsibility to develop staff positions on the matter at issue. This Office Director/Administrator will be responsible to make the determination as to whether the staff position is a backfit and whether the proposed backfit should be imposed on the licensee.



0514-04 BASIC REQUIREMENTS

041 Information Requests Pursuant to 10 CFR 50.54(f)

Paragraph 10 CFR 50.54(f) authorizes the NRC to require its licensees to provide additional safety information to enable the Commission to determine whether or not a license should be modified, suspended, or revoked. This paragraph (as amended in 50 FR 38097) requires the NRC to justify such information requests by a supporting analysis which finds that the burden to be imposed is justified in view of the potential safety significance of the issue to be addressed in the requested information. The exceptions to this requirement are as follows:

- a. No finding is required whenever there is reason to believe that the public health and safety may not be adequately protected and safety information is needed to decide if this is the case and to take any necessary corrective action.
- b. Concerning the review of applications for licenses or amendments, or the conduct of inspection activities, for plants under construction, no finding will be necessary if the staff seeks information of a type routinely sought as a part of the standard procedures concerning the review of applications. If the request is not part of routine licensing review (for example, if it seeks to gather information pursuant to development of a new staff position), a Staff analysis of the reasons for the request and a finding must be prepared and approved prior to issuance.
- c. Concerning licensing review or inspection activities for operating plants, information requests seeking to verify licensee compliance with the current licensing basis for the facility are exempt from the necessity to prepare the reason or reasons for the request and to make a finding. Requests for information to determine compliance with existing facility requirements including fact-finding reviews, inspections and investigations of accidents or incidents, usually are

not made pursuant to Section 50.54(f), nor are such requests normally considered within the scope of the backfit rule or this Chapter.

The Directors of NRR and NMSS and Regional Administrators shall develop internal office procedures to ensure that there is a rational basis for all information requests not clearly excepted from the finding, whether or not it is clear that backfit action would result from staff evaluation of the information supplied by the licensee. The request must be evaluated to determine whether the burden imposed by the information request is justified in view of the potential safety significance of the issue to be addressed. The information request and the staff evaluation must be approved by the cognizant Office Director or Regional Administrator prior to transmittal of the request for information to a licensee.

NRC staff evaluations of the necessity for an information request shall include at least the following elements:

- a. A problem statement that describes the need for the information in terms of potential safety benefit.
- b. The licensee actions required and the cost to develop a response to the information request.
- c. An anticipated schedule for NRC use of the information.

#### 042 Identifying Plant-Specific Backfits

The NRC staff shall be responsible for identifying proposed plant-specific backfits as defined by Section 05 of the Chapter. The staff at all levels will evaluate any proposed plant-specific position with respect to whether or not the position qualifies as a proposed backfit pursuant to Section 05 of this Chapter. No staff position should be communicated to a licensee unless the NRC official communicating that position has ascertained whether or not the position is to be identified as a backfit. NRC

Appendix 0514 provides information to help in identifying backfits arising from selected staff activities. When a staff proposed position is identified as a backfit the staff should determine expeditiously whether the backfit is needed to ensure adequate protection of the public health and safety or to comply with Commission rules or orders the license, or written licensee commitments. If, and only if the backfit does not meet this test, the appropriate staff office should proceed promptly with the preparation of a regulatory analysis (Section 043) for approval in accordance with this Chapter.

Economic cost can never be a consideration either in defining what is an adequate level of protection or in ensuring that an adequate level of protection is achieved and maintained.

The staff may, at any point in the development of the regulatory analysis, decide that further analysis is likely to show either that the proposed safety benefit is not likely to be substantial additional overall protection, or that the direct and indirect costs of implementation are not likely to be justified. In this case, the issue may be closed, with appropriate notice sent to all parties and recorded in the recordkeeping system described in Section 046.

When (1) a staff proposed position is necessary to bring a facility into compliance with a license or the rules or orders of the Commission, (Sections 052-a, 053-a) or into conformance with written commitments by the licensee (Sections 052-a, 053-b), or (2) the Director of NRR or NMSS determines that imposition of a backfit is necessary to ensure that the facility provides adequate protection to public health and safety, no regulatory analysis is required. Instead, the appropriate Director/Administrator is to provide a documented evaluation to support the action taken.

The evaluation shall include a statement of the objectives of the reasons for the modification and the basis for invoking the exception. In the

case of a backfit needed to assure that the facility provides adequate protection, the documented evaluation shall also include an analysis to document the safety significance and appropriateness of the action taken. Should it be necessary or appropriate for the Commission to prescribe a way to achieve adequate protection, the evaluation can include a consideration of how costs contribute to selecting the solution among various acceptable alternatives. However, cost will not be a factor in determining what constitutes an adequate level of protection. Such an evaluation is to be issued with the backfit except that, when an immediately effective regulatory action is necessary, and the safety need is so urgent that full documentation cannot be completed, the documentation may follow the backfit.

A proposed staff position which is not identified by the NRC staff as a backfit position may be claimed to be a backfit position by a licensee. The staff will promptly consider a licensee claim of backfit to determine if the claimed backfit qualifies as such in accordance with Section 05 of this Chapter. Licensees identifying such items should send a written claim of backfit (with appropriate supporting rationale) to the Office Director or Regional Administrator of the NRC staff person who issued the position with a copy to the EDO. If the NRC staff determination is that the issue is a backfit, the appropriate staff office should proceed immediately with the preparation of any required regulatory analysis for approval in accordance with this Chapter.

If the determination is that the proposed staff position is not a backfit, the appropriate staff office shall document the basis for the decision and transmit it together with any documented evaluation required by this section to the licensee. In any case, the appropriate Office Director/Regional Administrator shall report to the EDO and inform the licensee, within 3 weeks after receipt of the written backfit claim, of the results of the determination and the plan for resolving the issue.

When a licensee is informed that a claimed backfit is, in the judgment of the NRC, not a backfit, the licensee may appeal this determination as described in Section 044 of this Chapter.

#### 043 Regulatory Analysis

Positions identified as plant-specific backfits requiring the regulatory analysis in this section shall be transmitted to licensees only after a determination that there is a substantial increase in the overall protection of the public health and safety or the common defense and security to be derived from the backfit, and that the direct and indirect costs of implementation for that facility are justified in view of the increased protection. The proposed backfit and supporting regulatory analysis must be approved by the appropriate Program Office Director or Deputy Director, or Regional Administrator or Deputy Regional Administrator and forwarded to the EDO before the backfit and its supporting regulatory analysis are transmitted to the licensee.

The regulatory analysis shall generally conform to the directives and guidance of NUREG/BR-0058 and NUREG/CR-3568, which are the NRC's governing documents concerning the need for preparation of regulatory analyses. In preparing regulatory analyses under this section, the staff should note that the complexity and comprehensiveness of an analysis should be limited to that necessary to provide an adequate basis for decisionmaking among the alternatives available. The emphasis should be on simplicity, flexibility, and common sense, both in terms of the type of information supplied and in the level of detail provided. The following information and any other information relevant and material to the backfit shall be included in the regulatory analysis, as available and appropriate to the analysis:

- a. A statement of the specific objective that the proposed backfit is designed to achieve. This should also include a succinct description of the backfit proposed, and how it provides a substantial increase in overall protection.

- b. A general description of the activity that would be required by the licensee in order to complete the backfit.
- c. The potential safety impact of changes in plant design or operational complexity, including the relationship to proposed and existing regulatory requirements.
- d. Whether the proposed backfit is interim or final and, if interim, the justification for imposing the proposed backfit on an interim basis.
- e. A statement that describes the benefits to be achieved and the cost to be incurred. Information should be used to the extent that it is reasonably available, and a qualitative assessment of benefits may be made in lieu of the quantitative analysis where it would provide more meaningful insights, or is the only analysis practicable. This statement should include consideration of at least the following factors:
  - (1) The potential change in risk to the public from the accidental offsite release of radioactive material.
  - (2) The potential impact on radiological exposure of facility employees. Also consider the effects on other onsite workers, due both to installation of procedural or hardware changes and to the effects of the changes, for the remaining lifetime of the plant.
  - (3) The installation and continuing costs associated with the backfit, including the cost of facility downtime or the cost of construction delay.
  - (4) The estimated resource burden on the NRC associated with the proposed backfit and the availability of such resources.

- f. A consideration of important qualitative factors bearing on the need for the backfit at the particular facility, such as, but not limited to, operational trends, significant plant events, management effectiveness, or results of performance reports such as the Systematic Assessment of Licensee Performance.
- g. A statement affirming appropriate interoffice coordination related to the proposed backfit and the plan for implementation.
- h. The basis for requiring or permitting implementation on a particular schedule, including sufficient information to demonstrate that the schedules are realistic and provide adequate time for in-depth engineering, evaluation, design, procurement, installation, testing, development of operating procedures, and training of operators and other plant personnel, as appropriate. For those plants with approved integrated schedules, the integrated scheduling process can be used for implementing this step and the following two procedural steps.
- i. A schedule for staff actions involved in implementation and verification of implementation of the backfit, as appropriate.
- j. Importance of the proposed backfit considered in light of other safety-related activities underway at the affected facility.
- k. A statement of the consideration of the proposed plant-specific backfit as a potential generic backfit.

#### 044 Appeal Process

The appeal processes described in this section are of two types, applied to two distinctly different situations:

- a. Appeal to an Office/Region to modify or withdraw a proposed backfit which has been identified, and for which a regulatory analysis has been prepared and transmitted to the licensee; or
- b. Appeal to an Office/Region to reverse a denial of a prior licensee claim either that a staff position, not identified by the NRC as a backfit, is one, or that a backfit which staff believes falls within one of the exceptions from the requirement for a regulatory analysis, does not.

In the first type of situation described, licensees should address an appeal of a proposed backfit to the Office Director or Regional Administrator whose staff proposed the backfit with a copy to the EDO. The appeal should provide arguments against the rationale for imposing a backfit as presented in the staff's regulatory analysis. The Office Director or Regional Administrator shall report to the EDO within 3 weeks after receipt of the appeal concerning the plan for resolving the issue. The licensee should also be promptly and periodically informed in writing regarding the staff plans. The decision of the Office Director on an appeal of plant-specific backfit may be appealed to the EDO unless resolution is achieved at a lower management level. The EDO shall promptly resolve the appeal and shall state his reasons therefor. Summaries of all appeal meetings shall be prepared promptly, provided to the licensee, and placed in appropriate Public Document Rooms. During the appeal process, primary consideration shall be given to how and why the proposed backfit provides a substantial increase in overall protection and whether the associated costs of implementation are justified in view of the increased protection. This consideration should be made in the context of the regulatory analysis as well as any other information that is relevant and material to the proposed backfit.

In the second type of appeal situation the appeal should be addressed to, and will be decided by, the Director of the program office having responsibility for the program area relevant to the staff position, unless



resolution is achieved at a lower management level. A copy of the appeal should also be sent to the Executive Director for Operations. The appeal should take into account the staff's evaluation, the licensee's response, and any other information that is relevant and material to the backfit determination. The EDO may review and may modify a decision either at his or her own initiative or at the request of the licensee. If the licensee appeals to the EDO, the EDO shall promptly resolve the appeal and shall state the reasons therefor. Backfit claims and resultant staff determinations that are reevaluated in response to an appeal, and that are again determined by the NRC not to be backfits, or are except from the requirement for a regulatory analysis, are not to be treated further in the context of this Chapter. Such matters are to be dealt with within the normal licensing or inspection appeal process and are not subject to the requirements of this Chapter.

#### 045 Implementation of Backfits

Following approval of any required regulatory analysis by the appropriate Office Director or Regional Administrator, review if any by the EDO, and issuance of the backfit to the licensee, the licensee will either implement the backfit or appeal it. After an appeal and subsequent final decision by the appropriate Office Director or EDO, the licensee may elect to implement a backfit resulting from the decision. If the licensee does not elect to implement the backfit, it may be imposed by Order of the appropriate Office Director.<sup>3</sup>

Implementation of plant-specific backfits will normally be accomplished on a schedule negotiated between the licensee and the NRC. Scheduling criteria should include the importance of the backfit relative to other safety related activities underway, or the plant construction or maintenance planned for the facility, in order to maintain high quality

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Once an Order is issued, whether or not it is immediately effective, this Chapter no longer applies and appeals are governed by the procedures in 10 CFR Part 2, Subpart B.

construction and operations. For plants that have integrated schedules, the integrated scheduling process can be used for this purpose.

A staff-proposed backfit may be imposed by Order<sup>3</sup> prior to completing any of the procedures set forth in this Chapter provided the NRC official authorizing the Order determines that immediate imposition is necessary to provide adequate protection to the public health and safety or the common defense and security. In such cases, the EDO shall be notified promptly of the action and a documented evaluation as described in Section 042 performed, if possible, in time to be issued with the order.

If "immediate imposition" is not necessary, staff proposed backfits shall not be imposed, and plant construction, licensing action, or operation shall not be interrupted or delayed by NRC actions, during the staff's evaluation and backfit transmittal process, or a subsequent appeal process, until final action is completed under this Chapter.

#### 046 Recordkeeping and Reporting

The proposing Headquarters Office or Regional Office shall administratively manage each proposed plant-specific backfit using one agency recordkeeping system that provides for prompt retrieval of current status, planned and accomplished schedules, and ultimate disposition. The system shall provide reference to all documents issued or received by NRC staff relative to a plant-specific backfit, including requests, positions, statements, and summary reports. Access to make changes to the system will be limited to those designated within each Office and Region. Specific data required will include, but are not limited to:

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Once an Order is issued, whether or not it is immediately effective, this Chapter no longer applies and appeals are governed by the procedures in 10 CFR Part 2, Subpart B.

- a. Licensee and facility affected.
- b. Whether a backfit is identified by staff or by a licensee.
- c. Identification and description of the document that either transmits a staff-identified backfit or a licensee request for consideration of a licensee-identified backfit.
- d. Substance of the backfit issue.
- e. In the case of a licensee-identified backfit, the dates (predicted and completed) that determinations are made as to whether or not a staff position qualifies as a backfit, the substance of the determination, and the organization and official responsible for making the determination.
- f. A brief description of what action is pending, and the officials responsible to complete the action.
- g. Action closing data, to include a description of licensee or staff action and date of agreement or order to implement; responsible officials and organization for each action.

#### 047 Exceptions

Nothing in this Chapter shall be interpreted as authorizing or requiring the staff to make plant-specific backfits or assessments for generic backfits that are, or have been, subject to review by the CRGR and approval by the EDO, or for generic backfits approved prior to November 1981, unless the EDO determines that significant plant-specific issues were not considered during the prior reviews or the EDO authorizes a deviation under Section 031.

048 References

- a. NUREG/BR-0058, Rev. 1, May 1984, "Regulatory Analysis Guidelines of the U.S. Nuclear Regulatory Commission"
- b. NUREG/CR-3568, December 1983, "A Handbook for Value-Impact Assessment"
- c. NUREG/CR-3971, October 1984, "A Handbook for Cost Estimating"
- d. Revision of Backfit Rule, Code of Federal Regulations, 50 FR 38097 (Sept. 20, 1985)

0514-05 DEFINITIONS

051 Licensee

Except where defined otherwise, the word licensee as used in this Chapter shall mean that person that holds a license to operate a nuclear power plant, or a construction permit to build a nuclear power plant, or a Preliminary Design Approval, Final Design Approval, or Design Certification for a Standardized Plant Design.

052 Plant-Specific Backfit

Backfitting is defined as the modification of or addition to systems, structures, components, or design of a facility; or the design approval or manufacturing license for a facility; or the procedures or organization required to design, construct or operate a facility; any of which may result from a new or amended provision in the Commission rules or the imposition of a regulatory staff position interpreting the Commission rules that is either new or different from a previously applicable staff position after certain specified dates. Backfitting is "plant-specific" when it involves the imposition of a position that is unique to a particular plant.

It should be noted that to be a plant-specific backfit a staff position must meet conditions involving both (a) the substance of the elements of a proposed staff position and (b) the time of the identification of the staff position:

- a. A staff position may be a proposed backfit if it would cause a licensee to change the design, construction or operation of a facility from that consistent with already applicable regulatory staff positions. Applicable regulatory staff positions are described in Section 053.
- b. A staff position as described in (a) above is a proposed backfit if it is first identified to the licensee after certain important design, construction or operation milestones, involving NRC approvals of varying kind, has been achieved. Those times after which a new or revised staff position will be considered a backfit are as follows:
  - (1) after the date of issuance of the construction permit for the facility (for facilities having construction permits issued after May 1, 1985); or
  - (2) after 6 months before the date of docketing of the OL application for the facility (for facilities having construction permits issued before May 1, 1985); or
  - (3) after the date of issuance of the operating license for the facility (for facilities having an operating license on May 1, 1985).
  - (4) After the date of issuance of the design approval under 10 CFR 50, Appendix M, N or O.

NOTE: The EDO directives embodied in Chapter NRC-0514 are effective as of (date of issuance).

053 Applicable Regulatory Staff Positions

Applicable regulatory staff positions are those already specifically imposed upon or committed to by a licensee at the time of the identification of a plant-specific backfit, and are of several different types and sources:

- a. Legal requirements such as in explicit regulations, orders, plant licenses (amendments, conditions, technical specifications). Note that some regulations have update features built in, as for example, 10 CFR 50.55a, Codes and Standards. Such update requirements are applicable as described in the regulation.
- b. Written commitments such as contained in the FSAR, LERs, and docketed correspondence, including responses to IE Bulletins, responses to Generic Letters, Confirmatory Action Letters, responses to Inspection Reports, or responses to Notices of Violation.
- c. NRC staff positions<sup>4</sup> that are documented, approved, explicit interpretations of the more general regulations, and are contained in documents such as the SRP, Branch Technical Positions, Regulatory Guides, Generic Letters and IE Bulletins and to which a licensee or an applicant has previously committed to or relied upon. Positions contained in these documents are not considered applicable staff positions to the extent that staff has, in a previous licensing or inspection action, tacitly or explicitly excepted the licensee from part or all of the position.<sup>5</sup>

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4 Requirements may be imposed by rule or order. Staff interpretations such as examples of acceptable ways to meet requirements are not requirements in and of themselves.

5 Imposition of a staff position from which a licensee has previously been excepted is a backfit.

**NRC PROGRAM FOR MANAGEMENT OF PLANT-  
SPECIFIC BACKFITTING OF NUCLEAR POWER PLANTS**

**NRC Appendix 0514**

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0514-06 APPENDIX A - Guidance for Making Backfit Determinations

A. General

In this section selected regulatory activities and documents are discussed in order to enable members of the NRC staff and the regulated industry to better understand the conditions under which a staff position may be viewed as a plant-specific backfit. It is important to understand that the necessity for making backfit determinations should not inhibit the normal informal dialogue between the technical reviewer or inspector and the licensee. The intent of this process is to manage backfit imposition, not to quell it. The discussion in this Appendix is intended to aid in identifying backfits in accordance with the principles and the practices that should be implemented by all staff members. This Appendix is not intended to be an exhaustive, comprehensive workbook in which can be found a parallel example for each situation that may arise. As is evident from the definitions in Section 05 of this Chapter, a plant-specific backfit has the elements of a change from an already applicable staff position where an applicable staff position is defined as that established before certain defined milestones in the affected plant's licensing history. There will be some judgment necessary to determine whether a staff position would cause a licensee to change the design, construction or operation of a facility. In making this determination, the fundamental question is whether the staff's action is directing, telling, or coercing, or is merely suggesting or asking the licensee to consider a staff proposed action.

Actions proposed by the licensee are not backfits under this chapter even though such actions may result from normal discussions between staff and licensee concerning an issue, and even though the change or additions may meet the definitions of Section 0514-052 and 0514-053.



B. Licensing

1. Standard Review Plan (SRP) - The SRP delineates the scope and depth of staff review of licensee submittals associated with various licensing activities. It is a definitive NRC staff interpretation of measures which, if taken, will satisfy the requirements of the more generally stated, legally binding body of regulations, primarily found in Title 10 CFR. Since October 1981, changes to the SRP are to have been reviewed and approved through a generic review process involving the Committee to Review Generic Requirements (CRGR), and the extent to which the changes apply to classes of plants is defined. Consequently, application of a current SRP in a specific operating license (OL) review generally is not a plant-specific backfit, provided the SRP was effective 6 months prior to the start of the OL review. Asking an applicant for an operating license questions to clarify staff understanding of proposed actions, in order to determine whether the actions will meet the intent of the SRP, is not considered a backfit.

On the other hand, using acceptance criteria more stringent than those contained in the SRP or taking positions more stringent than or in addition to those specified in the SRP, whether in writing or orally, is a plant-specific backfit. During meetings with the licensee, staff discussion or comments regarding issues and licensee actions volunteered which are in excess of the criteria in the SRP generally do not constitute plant-specific backfits; however, if the staff implies or suggests that a specific action in excess of already applicable staff positions is the only way for the staff to be satisfied, the action is considered a plant-specific backfit whether or not the licensee agrees to take such action. However, the staff should recognize that a verbally implied or suggested action should not be accepted by a licensee as an NRC position of any kind, backfit or not; only written and authoritatively approved position statements should be taken as NRC positions.

Application of an SRP to an operating plant after the license is granted generally is considered a backfit unless the SRP was approved specifically for operating plant implementation and is applicable to such operating plant. It is important to note, however, that in order to issue an amendment to a license, there must be a current finding of compliance with regulations applicable to the amendment. As a specific example, review of a plant owner's application for a license amendment to authorize installation and operation of a new reactor core, commonly called a "reload application," may necessitate review of new fuel designs or new thermal-hydraulic correlations and associated operating limits. Such changes that are clearly advances in design or operation may involve new or unreviewed safety issues, and may warrant review to SRP criteria which were approved subsequent to initial license issuance to the licensee. This is not considered a backfit. However, such review to newer SRP revisions is not necessarily required to determine current compliance with regulations. Licensee proposed revisions in design or operation that raise staff questions only about potential reduced margins of safety as defined in the basis for any technical specification should be reviewed by reanalysis of the same accident sequences and associated assumptions as analyzed in the FSAR for the initial license issuance.

During reload reviews, staff proposed positions with regard to technical matters not related to the changes proposed by a licensee shall be consider backfits.

2. Regulatory Guides - As part of the generic review process pursuant to the CRGR Charter, it is decided which plants or groups of plants should be affected by new or modified Regulatory Guide provisions. Such implementation is therefore not governed by the plant-specific backfit procedures. However, any staff proposed plant-specific implementation of a Regulatory Guide provision, whether orally or in writing, for a plant not encompassed by the generic implementation determination is considered a plant-specific backfit. A staff action

with respect to a specific licensee that expands on, adds to, or modifies a generically approved regulatory guide, such that the position taken is more demanding than intended in the generic positions, is a plant-specific backfit.

3. Plant-Specific Orders - An order issued to cause a licensee to take actions which are not otherwise applicable regulatory staff positions is a plant-specific backfit. As described in Section 0514-045 of this Chapter, an order effecting immediate imposition of a backfit may be issued prior to completing any of the procedures set forth in this Chapter provided that the appropriate Office Director determines that immediate imposition is necessary.

An order issued to confirm a licensee commitment to take specific action even if that action is in excess of previously applicable staff positions, is not a plant-specific backfit provided the commitment was not obtained by the staff with the expressed or implied direction that such a commitment was necessary to gain acceptance in the staff review process. Discussion or comments by the NRC staff identifying deficiencies observed, whether in meetings or written reports, do not constitute backfits. Definitive statements to the licensee directing a specific action to satisfy staff positions are backfits unless the action is an explicit and already applicable regulatory staff position.

#### C. Inspection and Enforcement

1. Inspections - NRC inspection procedures govern the scope and depth of staff inspections associated with licensee activities such as design, construction and operation. As such, they define those items the staff is to consider in its determination of whether the licensee is conducting its activities in a safe manner. The conduct of inspections establishes no new staff positions for the licensee and is not a plant-specific backfit.

Staff statements to the licensee that the contents of an NRC inspection procedure are positions that must be met by the licensee constitute a plant-specific backfit unless the item is an applicable regulatory staff position. Discussion or comment by the NRC staff regarding deficiencies observed in the licensee conduct of activities, whether in meetings or in written inspection reports, do not constitute backfits, unless the staff suggests that specific corrective actions different from previous applicable regulatory staff positions are the only way to satisfy the staff. In the normal course of inspecting to determine whether the licensee's activities are being conducted safely, inspectors may examine and make findings in specific technical areas wherein prior NRC positions and licensee commitments do not exist. Examination of such areas and making findings is not considered a backfit. Likewise, discussion of findings with the licensee is not considered a backfit. If during such discussions, the licensee agrees that it is appropriate to take action in response to the inspector's findings, such action is not a backfit provided the inspector does not indicate that the specific actions are the only way to satisfy the staff. On the other hand, if the inspector indicates that a specific action must be taken, such action is a backfit unless it constitutes an applicable regulatory staff position. Further, if the licensee decides to claim that the inspector's findings are a backfit, then the staff must decide whether they are a backfit under this Chapter.

For example, if the licensee commits to ANSI-N18.7 in the SAR and the inspector finds the licensee's implementing procedures do not contain all the elements required by ANSI-N18.7, telling the licensee he must take action to include all the elements in the implementing procedures is not a backfit. If the inspector finds the licensee has included all the required elements of ANSI-N18.7, but has not included certain of the optional elements in the implementing procedures, inspector discussion with the licensee regarding the merits of including the optional elements is not a backfit. On the

other hand, if the inspector tells the licensee that the implementing procedures must include any or all of the optional elements in order to satisfy the staff, inclusion of such elements is a backfit, whether or not agreed to by the licensee.

2. Notice of Violations (NOV) - a NOV requesting description of a licensee's proposed corrective action is not a backfit. The licensee's commitments in the description of corrective action are not backfits. A request by the staff for the licensee to consider some specific action in response to an NOV is not a backfit. However, if the staff is not satisfied with the licensee's proposed corrective actions and requests that the licensee take additional actions, those additional actions (whether requested orally or in writing) are a backfit unless they are an applicable regulatory staff position.

Discussions during enforcement conferences and responses to the licensee's requests for advice regarding corrective actions are not backfits; however, definitive statements to the licensee directing a specific action to satisfy staff positions are backfits, unless the action is an explicit applicable regulatory staff position.

3. Bulletins - IE Bulletins and resultant actions requested of licensees undergo the general review process pursuant to the CRGR Charter. Therefore, in general, it is not necessary to apply the plant-specific backfit process to the actions requested in a Bulletin. However, if the staff expands the action requested by a Bulletin during its application to a specific licensee, such expansion is considered a plant-specific backfit.
4. Reanalysis of Issues - Throughout plant lifetime, many individuals on the NRC staff have an opportunity to review the requirements and commitments incumbent upon a licensee. Undoubtedly, there will be occasions when a reviewer concludes the licensee's program in a

specific area does not satisfy a regulation, license condition or commitment. In the case where the staff previously accepted the licensee's program as adequate, any staff specified change in the program would be classified as a backfit.

For example, in the case of an NTOL, once the SER is issued signifying staff acceptance of the programs described in the SAR, the licensee should be able to conclude that his commitments in the SAR satisfy the NRC requirements for a particular area. If the staff was to subsequently require that the licensee commit to additional action other than that specified in the SAR for the particular area, such action would constitute a backfit.

A somewhat different situation exists when the licensee has made a submittal committing to a specific course of action to meet an applicable position, and the staff has not yet responded, and therefore has not indicated that the commitment is or is not sufficient to meet the applicable position. Subsequent staff action, which must be taken within a reasonable time not delaying the applicant's implementation plans, to cause the licensee to meet the applicable regulatory staff position is not a backfit. If the licensee has moved ahead in the intervening time to implement that which the licensee proposed to do in its submittal and the staff has failed to provide a timely response, then the staff position may be considered a backfit. Thus, if a licensee has implemented a technical resolution intended to meet an applicable regulatory staff position, and staff for an extended period simply allows the licensee resolution to stand with tacit acceptance indicated by non-action on the part of NRC, then a subsequent action to change the licensee's design, construction, or operation is a backfit.