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Comments of J.J . Stryker, based on 20 years' experience in the nuclear industry:

1. The narrow redefinition of the term "forward fitting" is confusing, in that this phrase has long been used in a more general sense within the industry. Now that this Commission has unilaterally appropriated the term to mean a mere slice of what it used to, what term will this Commission use in instances where a new regulatory position may eventually be applied in a forward-looking manner, whether or not it is directly conditioned to the approval of a licensing action? (For example, the issuance of a new revision of a regulatory guide that licensees are not required or committed to follow? E.g., non-fit?, unfit?, possi-fit?)

2. The process used by this Commission to establish rules and guidance for forward fitting is inappropriate. Backfitting requirements have been emplaced upon the regulatory staff via regulation (i.e., 10 CFR 50.109). Forward fitting requirements should have followed the same route to ensure, before implementation of the new policy, adequate scrutiny of the proposed approach by all interested stakeholders, sufficient opportunity for public comment, consideration and possibly accommodation of alternative viewpoints, and, ultimately, the long-term stability of the resulting regulatory position. Yet, disappointingly, rather than following the sure course of its own procedures and established precedents to ensure adequate deliberation of the full range of views, this Commission chose instead to force its own immoderate reinterpretation of existing requirements through an opaque, expedient, backdoor process of regulating via Management Directives and NUREG reports.

3. Applying to forward fitting a set of strictures originally derived for backfitting is both illogical and callous toward public safety.

   From a backfitting perspective, a semi-plausible legalistic rationalization has previously been advanced for regulatory inaction on emergent safety questions. Namely, once upon a time (typically decades ago when reactor designs, safety analysis methods, and engineering knowledge were far less advanced), the regulatory staff determined that a nuclear power plant licensee had once satisfied applicable regulations, at least insofar as understood at that time, whether said understanding was correct or not; moreover, according to the Commission's backfit policy, a finding that the Commission's regulations had at any point in history been satisfied is sufficient grounds eternally to perpetuate the presumption of safe operation ever after, absent significant new information to the contrary, which would be evaluated per the backfit process using a risk-based, cost-benefit approach.

   The tale of backfitting related above is well-known throughout the nuclear industry. Yet it bears rehashing to assess critically this Commission's application of a similar strand of logic to the situation it now deems "forward fitting." To api.,ly a forward fit under this Commission's new policy, apparently the regulatory staff must not only demonstrate (1) a direct nexus of the forward fit to the licensee's request and (2) that the forward fit is essential to the acceptability of the request, but must also, in some unspecified manner, (3) take into account costs. In other words, even if the regulatory staff proposes a relevant condition that the licensee must satisfy in order to assure the acceptability (i.e., typically through a demonstration of regulatory compliance) of its voluntary request, if the cost is not justified (according to whatever unspecified standard this Commission intends to apply), the forward fit proposed by the regulatory staff would apparently not be imposed. (Needless to say, forward fitting in general

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will not involve matters of adequate protection.) However, and here is the key point, under some circumstances, according to this Commission's new policy, the licensee's voluntary request may apparently be granted without adopting the new regulatory position the regulatory staff deems essential to support implementation of the request! Mind you, in the case of this Commission's new forward fitting policy, there is no fig-leaf presumption of safety derived from a historical finding of regulatory compliance; rather, according to this Commission, the request may be granted under some circumstances, despite full knowledge that the request would lead to a plant configuration that is inadequate to demonstrate regulatory compliance according to the regulatory staff's best judgment using the best available technical knowledge, and hence, inadequate to protect the public health and safety.

As such, the forward fitting policy proposed by this Commission clearly places licensee's profit margins above the public health and safety; it permits licensees to cherry-pick favorable regulatory positions, regardless of their technical validity, meanwhile allowing them to ignore those they find burdensome, even those burdensome positions the regulatory staff finds necessary to implement the voluntary licensing request in accordance with the Commission's regulations!

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4. On page 3-4, in the paragraph beginning on line 17, a distinction is being made with the previous paragraph that does not come across clearly. When, on line 19, the text states that "the existing regulatory staff position is available for current licensees to use and applicable to the licensing action," what is meant? For example, a regulatory guide? A standard review plan? An interm staff guidance document? Or does this Commission intend to include among "available" regulatory positions that another licensee somewhere in the United States maintains an alternative position that was once approved in the past (and has not been backfit away), but which is no longer acceptable to the regulatory staff? If this latter interpretation is correct, then how does this Commission intend to ferret out all the differences in licensing basis that may make the regulatory positions in the licensing basis of one plant appropriate for it, but not necessarily for other plants?

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5. On page 3-4, when the "availability" of regulatory staff positions is being discussed, it is not clear how earlier revisions of documents are regarded. For instance, Regulatory Guide 1.### may be on Revision 5. Or topical report ABCD-####-A (i.e., approved by regulatory staff safety evaluation) may be on Revision 3. In many cases, earlier revisions of these documents, while no longer considered acceptable on a technical basis for new applications according to the regulatory staff's current standards, have never been withdrawn or otherwise formally disavowed for future applications (note that in this regard, preventing future applications of the antiquated guidance is a separate and distinct act (i.e., neither a backfit nor a "forward fit") from removing an antiquated guidance document from the licensing basis of individual plants previously approved to use it (i.e., a backfit)). Do the regulatory positions represented by such earlier revisions of approved documents, which in general have not been explicitly repudiated, remain "available" or not?

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Furthermore, as applicable, does this Commission plan to direct the regulatory staff to review any such superseded but non-repudiated documents that it would deem as containing so-called "available" regulatory positions to ensure that they remain technically valid and justifiable, or does this Commission intend to require the regulatory staff to accept, carte blanche, licensees' use of outdated regulatory positions that obviously lack technical justification for forward-looking voluntary design changes to their plants? If this Commission cares at all about safety, it

is imperative that it direct the regulatory staff immediately to review all "available" regulatory positions and guidance documents to ensure that they are genuinely acceptable according to present-day standards. If they are not, this Commission must make them "unavailable" for future licensing actions - which, to stress again, if such action is taken prior to a licensee request, obviously would be neither a backfit nor a forward fit, according to the definitions of the Commission itself.

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6. What are the standards or criteria for consideration of costs for forward fitting? The currently documented policy is utterly amorphous and unsuitable for practical implementation. Without more detailed guidance, one would expect considerable inconsistency in the regulatory staff's determinations. Does the Commission intend to impose the same standards for forward fitting as it has in the past applied to backfitting? As noted above, this would not appear logical or appropriate, since, in contrast with circumstances typically associated with backfitting, the decision to implement licensing requests ultimately remains voluntary (i.e., the licensee may withdraw the request), the requested licensing request has not previously been approved, and plant design modifications associated with the request do not necessarily represent a sunk cost.

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Furthermore, it is worth noting that it would seem inappropriate to consider costs associated with preparing and submitting a licensing application in a regulatory cost-benefit balance. Should these costs be brought into explicit consideration, it could spell the end of the regulatory staff's capability to perform credible, independent technical assessments of licensees' engineering analyses. For example, a licensee might argue it has already signed contracts or spent multi-millions to analyze and purchase a new fuel design. In this example, according to the licensee's (unapproved) probabilistic risk assessment models, changing fuel designs may result in no change in plant risk. Therefore, the licensee might argue, not only is it unreasonable for the staff to generate license conditions or other forward-fining restrictions, but also, there is no justification, perhaps, even to pose requests for additional information. This slope is dangerously slippery. How does this Commission intend to treat thispoint?

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7. This Commission's new fonvard-fitting policy pressures the regulatory staff to accept fundamentally unacceptable technical positions it has already found to be outdated and inadequate, conjuring up a tortured legalistic aegis to protect a soft underbelly of technical inadequacy. A further consequence of this Commission's new policy is that by forcing such low standards onto the regulatory staff, it tends to suppress an appropriately safety-conscious, questioning attitude. These pressures are illustrated in the following example:

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Let us presume that the the Commission compels the regulatory staff to accept Revision O of a document as an "available" regulatory position. However, the current revision of the document is Revision 4, which fixes numerous critical errors in earlier revisions. The regulatory staff knows Revision O is *antiquated and technically invalid for continued future use. However, once the regulatory staff has been forced to accept an analysis proposal that* is *based on inadequate Revision 0, what use* is *a review of any part of the licensee's proposal, since the licensee's entire analysis is, at the very outset, fatally undermined by errors and the use of unsound assumptions? Review* in *this circumstance becomes a useless, sham, paper exercise, of no intrinsic value. Would the regulatory staff make a serious effort to review an analysis that they well know is compromised to the point of being meaningless? And then, if this Commission* is *indeed directing its staff that guidance in a fatally flawed Revision O is "available," (which appears to be little more than a euphemism this Commission uses in lieu of claiming outright that it* is *"acceptable"), what, then should*

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the regulatory staff find unacceptable?

To push the question further, let's invoke a parallel scenario, where another licensee proposes a change involving analyses based on the current Revision 4 of the same guidance document discussed above. Shall the regulatory staff indeed penalize this licensee who has done the proper thing (i.e., using technically valid guidance) by asking questions or challenging anything in its evaluation? For, in fact, the minimum acceptable standard, as determined by this Commission, after scraping away the artifice of its euphemisms, would be the technically invalid Revision O standard. Why look too carefully, why challenge this licensee, why continue to develop new regulatory standards, why make progress? This Commission's new policy of has indeed invoked a series of questions with depressing consequences for public safety.

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8. Through its new forward fitting policy, this Commission is undermining its own regulations and elevating unapproved risk models as the de facto standard of safety. This Commission's new policy undercuts the engineering analysis and judgments traditionally used to determine the safety of nuclear power plants, which form the basis of the bulk of the regulations in 10 CFR 50 and other relevant requirements for reactor licensees. Yet, rather than following the appropriate path of changing the regulations to apply greater weight to probabilistic assessment, this Commission intends simply to hollow out the regulations from the inside. The regulations shall continue to exist in their present form; their wording will be changed not one bit. However, in practical terms, what it takes to assure compliance with them will change quite substantially. No longer will new requests be evaluated against the regulations in accordance with proper standards of engineering and current knowledge. Now, instead, this Commission has directed that obsolete regulatory positions shall remain "available" (i.e., read acceptable); only in the very unlikely event that an unapproved probabilistic assessment shows a core damage frequency that exceeds a threshold associated with adequate protection will this Commission at long last intervene. Because, the list of so-called "available" regulatory positions is long and includes many that are in actual fact obsolete and inadequate, this Commission is essentially allowing licensees stealthily to shift to a minimalistic risk-based regulatory framework, without any justification or any explicit change to the matter of the regulations, and without adequate public input.

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9. A further serious problem with this Commission's new policy is that it unduly shifts the burden of proof onto the regulatory staff. Under this policy, when licensees choose technically invalid but "available" positions to support licensing requests, this Commission essentially forces the regulatory staff to prove there is a safety problem with the request. That is to say, the Commission's sanctioning of inadequate guidance as "available" essentially deems it as provisionally acceptable, barring regulatory staff challenge. In particular, the regulatory staff must prove that there is a risk significant, adequate protection problem with the request. However, the regulatory staff frequently lacks the tools and information, such that it is incapable of performing such analysis in the limited amount of time it has available to process licensing requests. Furthermore, under the pressure of NEIMA, and general economic headwinds facing the industry, there is already significant pressure on the regulatory staff to complete its reviews in a timely manner and with little burden to the licensee. Thus, this Commission has set up a policy that provides a superficial appearance of containing at least minimal checks and balances (i.e., adequate protection standard is maintained). However, because of the inordinate burden of proof, the lack of available information, the challenges associated with posing questions to licensees, and the schedule pressures facing the regulatory

staff's review effort, even these minimal checks and balances appear largely ineffectual, a paper tiger.

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10. This Commission's new forward fitting policy is the wrong decision, and it is further no stretch to deem it an historically bad decision. It places industry profits above safety, it is illogical, it followed an inappropriate process that did not adequately account for alternative views, it permits licensees to use technically invalid regulatory positions to justify new licensing requests, it forces the burden of proof onto the staff but provides no meaningful opportunity for the staff to develop counterarguments, it provides no reasonable criteria for consideration of costs, it undermines the quality of the regulatory staff's reviews, it perversely penalizes licensees who use technically valid guidance, and it devalues the fundamental engineering practices on which the safety of operating nuclear reactors is primarily based. Therefore, I feel it my duty to request that this Commission reverse the internal directive given to the regulatory staff immediately. If this Commission still wishes to pursue such a misguided policy, please follow the appropriate path of rulemaking so that alternative views may be considered and accommodated. Thank you.