

「検査気付き事項のスクリーニングに関するガイド」の軽微事例集 の見直し方針について

令和 3 年 3 月 12 日
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「検査気付き事項のスクリーニングに関するガイド」の「参考資料 軽微事例集」（以下、「事例集」という。）は、米国原子力規制委員会の IMC0612 Appendix E, Examples of Minor Issues（以下、「IMC0612」という。）から抜粋、和訳したものであるが、この 1 年間の原子力規制検査の中でスクリーニング実績を蓄積してきたことから、事例集を以下の方針で改訂する。

1. 見直し方針

（1）軽微と判断する考え方を充実

現行の事例集では、事例の種類（記録の保持等）毎に取扱いの考え方を分類しているが、これに加え、軽微と検査指摘事項「緑」との判断に参考となる情報として、実際に設備等で機能劣化が顕在化しなくとも緑以上になり得るとしている IMC0612 の該当箇所を引用する。

さらに承認された設計図面の重要な誤記は、それが使われなくとも検査指摘事項になり得るとしている IMC0617 Appendix E Minor examples of vendor and QA implementation findings も該当箇所を引用する。（添付 1 参照）

放射線防護については、複数のバリア（訓練、手順書、モニタリング等）で原子力安全を確保することから、被ばく量が線量限度を超えなくとも複数のバリアが破られたことで緑と判定している米国の事例を引用する。（添付 2 参照）

（2）原子力規制検査の事例を掲載し、現行の米国事例は削除

原子力規制検査における軽微事例とともに、検査指摘事項「緑」の事例も判断の根拠とともに掲載する。

また、今後、原子力規制検査の経験の蓄積に伴い、事例を適宜追加していくことから、現行の米国事例は削除し IMC の URL のみ紹介する。

2. 核燃料施設の事例の扱い

現行は事例の種類毎に実用炉と一緒に記載しているため、検索しにくいことから、実用炉と分けて、核燃料施設だけで事例を解説付きで整理する。

以 上

NRC INSPECTION MANUAL

IRAB

INSPECTION MANUAL CHAPTER 0612 APPENDIX E

EXAMPLES OF MINOR ISSUES

Effective Date: 01/01/2021

This guidance applies to thresholds for the minor and more-than-minor (MTM) determination in Inspection Manual Chapter 0612.

Minor findings and violations are below the significance of that associated with Green SDP findings and are not the subject of formal enforcement action or normal documentation. Failures to implement requirements that have insignificant safety or regulatory impact or findings that have no more than minimal risk should normally be categorized as minor. While licensees must correct minor violations, minor violations or other minor findings do not normally warrant documentation in inspection reports and do not warrant enforcement action.

NRC Inspection Manual Chapter 0612 Appendix B, Issue Screening, provides guidance for determining if a finding should be documented and whether the finding can be analyzed using an SDP. When determining whether identified issues can be considered MTM, inspectors shall compare the issue to the examples and guidance in this appendix. Inspector should understand that equipment inoperability is not a pre-requisite for the PD to be MTM.

The purpose of the following examples is not to create a completely mechanistic determination process but is to provide direction that would allow the agency as a whole to screen performance deficiencies in a reasonably consistent manner. There may be instances where a performance deficiency is judged more than minor notwithstanding the example guidance due to impacts or circumstances not listed in the examples. When applicable, the finding documentation should describe the impact. It should be noted the performance deficiencies are written in this guidance are at a generic level and do not include the actual regulatory requirement or self-imposed standard. When writing PDs, please follow the guidance in IMC 0611.

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APPENDIX E

MINOR EXAMPLES OF VENDOR AND QA IMPLEMENTATION FINDINGS

E.1 PURPOSE

The purpose of this appendix is to provide additional guidance to the Nuclear Regulatory Commission (NRC) staff regarding the difference between minor and greater than minor vendor and QA implementation findings. The information contained in this section provides clarification and examples that may help the inspector determine if an inspection finding is greater than minor. In all cases, the final decision in determining if a finding is greater than minor should be based on the specifics of the inspection finding.

E.2 DEFINITION OF MINOR VIOLATIONS AND NONCONFORMANCES

Minor violations are below the significance of that associated with Severity Level IV violations and are not the subject of formal enforcement action or documentation. Failures to implement requirements that have insignificant safety or regulatory impact or findings that have no more than minimal risk should normally be categorized as minor. While vendors or applicants must correct minor violations, minor violations do not normally warrant enforcement action. However, minor violations may be documented if they are needed to support a licensing action.

Minor nonconformances to the technical and quality requirements imposed on a vendor through a purchase order and should be screened in the same manner as minor violations.

As used in this appendix, the term "insignificant" relates to a condition adverse to quality that has a minimal safety or regulatory impact.

E.3 WORK IN PROGRESS FINDINGS

All examples in this appendix assume (unless otherwise stated) that the document or activity had been released for use. This does not imply that "actual" work had to have been performed for an issue to be greater-than-minor. For example, if a design drawing had been released for use (i.e., the vendor or applicant had reviewed and approved the drawing), and it contained significant errors, the issue may be greater-than-minor even if the incorrect drawing had not been used.

All examples in this appendix assume that the vendor or applicant had an opportunity to identify and correct the issue (i.e., the document or activity had been reviewed by at least one level of quality assurance, quality control, or other designated / authorized personnel.)

This does not imply that the vendor or applicant must have "signed-off" the activity as complete. If the vendor or applicant had performed a quality control acceptance inspection, check, or review, which would reasonably be expected to identify and correct the issue, then the specific activity may not be a "work-in-progress."

In addition, the RPT allowed a light fixture to be repositioned several times during the work, which was not within the authorized scope of work as provided in the pre-job briefing and was contrary to the ALARA plan, item 16, "Contingency Plans," which states "Changes in work scope: notify RPS and Rad Engineering prior to deviating from the original plan/work scope."

These failures were within Exelon's ability to foresee and correct, and should have been prevented, and therefore are performance deficiencies. The deficiencies represent multiple failed radiation protection barriers.

Screening: This finding is more than minor because it is associated with the Program & Process attribute of the Occupational Radiation Safety cornerstone and affected the cornerstone objective to ensure the adequate protection of the worker health and safety from exposure to radiation from radioactive material during routine civilian nuclear reactor operation. Specifically, loose surface contamination levels were not adequately assessed on multiple occasions, discontinue work criteria were exceeded, and work outside of the planned scope was allowed. Thus multiple radiation safety barriers were defeated as described in IMC 0612, Section 6 "Health Physics," "General Screening Criteria."

Significance: Using IMC 0609.04, "Initial Characterization of Findings," issued October 7, 2016, and IMC 0609, Appendix C, "Occupational Radiation Safety Significance Determination Process," issued August 19, 2008, the inspection finding was not related to ALARA practices (Step 1), did not result in an overexposure (Step 5), did not represent a substantial potential for overexposure (Step 11), and did not compromise Exelon's ability to assess dose (Step 14). As a result, this finding was determined to be of very low safety significance (Green).

Cross-Cutting Aspect: This finding has a cross-cutting aspect in the area of Human Performance, Challenge the Unknown, in that Exelon did not ensure that individuals stop when faced with uncertain conditions and ensure risks are evaluated and managed before proceeding. Specifically, the RPTs involved in assessing radiological conditions and controlling work (and their supervisor) did not adequately evaluate the potential for very high levels of loose surface contamination in the RWCU isolation valve room following a significant leak and prior to working in overhead areas, and did not reassess conditions when dust fell from a light fixture. [H.11]

Enforcement:

Violation: 10 CFR 20.1003 defines a survey. 10 CFR 20.1501(a)(1) requires that each licensee make or cause to be made surveys that may be necessary for the licensee to comply with the regulations of Part 20.

Contrary to the above, on March 27 and March 29, 2018, Exelon did not perform adequate loose surface contamination surveys in the Unit 1 RWCU isolation valve room following a decontamination effort (and prior to authorizing work to hang radiation shielding), and following the observation of dust falling from a light fixture in the immediate work area. These surveys were necessary to demonstrate compliance with 10 CFR 20.1701, ALARA Plan 18-043, and its associated respiratory protection ALARA evaluation. As a result, three personnel received unplanned internal radiation exposures.

Disposition: This violation is being treated as an NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy.