

## ATTACHMENT 2

### EXAMPLES OF MINOR PERFORMANCY DEFICIENCIES

This guidance applies to thresholds for documenting performance deficiencies in Inspection Manual Chapter (IMC) RFCOP-SDP. Although the following examples relate to violations of requirements, Fuel Cycle Oversight Process (FCOP) performance deficiencies not associated with requirements should be considered minor if the performance deficiencies are similar to the example guidance.

The NRC Enforcement Policy acknowledges that some violations of minor safety, environmental, security, and regulatory concern are below the level of significance of Severity Level (SL) IV violations. Because of their nature, these “minor” violations are not the subject of formal enforcement action and are not usually documented in inspection reports.

Minor performance deficiencies are below the significance of SDP findings that are determined to be of very low safety significance (Green in the FCSDP), and are not the subject of formal enforcement action or documentation. Failure to implement requirements that have insignificant safety or regulatory impact or performance deficiencies that have no more than minimal risk should normally be categorized as minor. While licensees must correct minor violations, minor violations or other minor performance deficiencies do not normally warrant documentation in inspection reports or inspection records and do not warrant enforcement action.

In general, minor performance deficiencies should not be documented; however, certain exceptions apply. Documentation may be necessary as part of the resolution of an allegation. In other cases, while the violation itself is minor, the associated technical information may relate directly to an issue of agency-wide concern (e.g., the inspection was performed in response to an NRC Temporary Instruction). If, for these reasons the report writers and reviewers determine it is appropriate to document a minor violation, then it should be documented as a minor violation, with a reference to Section IV of the NRC Enforcement Policy. Inspection Manual Chapter (IMC) 0616, Fuel Cycle Facility Safety and Safeguards Inspection Reports,” provides guidance on when and how to document minor performance deficiencies.

IMC RFCOP-SDP, Attachment 1, "FCSDP Determination of Finding of Greater Than Minor Significance" provides guidance for determining if a performance deficiency should be documented and whether the finding should be analyzed using an SDP. When determining whether identified performance deficiency can be considered minor, inspectors should compare the performance deficiency to the following examples.

1. Record Keeping Issues
2. Licensee Administrative Requirement/Limit Issues
3. Non-significant Dimensional, Time, Calculation, or Drawing Discrepancies
4. Insignificant Procedural Errors
5. Work in Progress Performance Deficiencies
6. Occupational and Public Radiation Safety
7. Criticality Safety
8. Chemical Process Safety (Later)
9. Emergency Preparedness
10. Physical Security (Later)
11. Material Control and Accounting (MC&A) (Later)

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## 01. Record Keeping Issues

Minor record keeping violations that do not preclude the licensee from being able to take appropriate action on important matters; or properly assessing, auditing, or otherwise evaluating the licensee's activities.

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Example 01.01      Post-maintenance testing was performed on plant equipment. All the required tests were performed, based on statements from licensee workers, but there was no record that one of the critical safety control parameters had been measured. Based on indication on the control panel, the currently indicated value for the parameter is comparable to that which would have been required by the test.

Performance  
Deficiency:              The licensee failed to document test results as required by procedure.

Minor because:        This was a record keeping issue of low significance. There was reasonable assurance that test requirements were met as evidenced by actual parameter being within its expected range for the test.

Not minor if:            The parameter was determined to be degraded during subsequent testing.

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## 02. Licensee Administrative Requirement/Limit Issues

Minor violations that involve isolated cases where licensees exceed administrative limits, i.e., limits that licensees impose upon themselves that are more conservative than NRC's regulatory limits.

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Example 02.01        During an inspection of silicon foam fire penetration seals, an inspector noted that foam extrusion (3/8 inch) from repaired seals was less than the amount specified in the seal repair procedure (1/2 inch). However, the silicon foam vendor's instructions permit extrusions as little as 1/4 inch.

Performance  
Deficiency:              The installation of foam penetration seals was inadequate in that the seal repair did not meet the 1/2 inch foam extrusion required by the licensee's procedure.

Minor because:        The extrusions met the vendor's instruction limits; the foam was within the vendor's specifications to perform its intended function.

Not minor if:            Both the licensee and vendor procedures were violated such that the condition would have impacted the ability of the seal to perform its function.

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Example 02.02      The licensee's procedure required that heat tracing be energized in the diesel room from September 30 to April 30. In December, an inspector observed that the heat tracing was de-energized. The room temperature was 68 degrees, maintained by the steam boiler (50 degrees was the minimum temperature for operations). The temperature of the room was monitored and annunciated in the process area and at the security station. An annunciator response procedure instructs the operator to check heat tracing if the room temperature alarms were received. The inspector verified that the temperature in the room had not dropped below 50 degrees since September 30.

Performance  
Deficiency:      The licensee did not maintain the heat tracing in the diesel room energized in December as required by procedure.

Minor because:      This is a failure to implement a procedural requirement that had no safety impact under the given situation. The temperature had not dropped below the minimum temperature for operations.

Not minor if:      The annunciator was inoperable or the room temperature fell below 50 degrees.

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Example 02.03      The NRC requires licensees to maintain the total effective dose equivalent (TEDE) to 5 rem per year. The licensee established by procedure an administrative limit of 2 rem per year. Radiation protection manager or general manager approval was required for any individual to exceed the procedural limit. Contrary to the licensee's program, a technician received 2.7 rem in one year without approval from the radiation safety officer because the technician, the technician's supervisor, and the HP personnel failed to notice that the technician had approached and then exceeded the administrative limit.

Performance  
Deficiency:      A licensee worker exceeded 2 rem in a year without radiation protection manager or general manager approval.

Minor because:      The worker's dose was within federal limits which are based on acceptable risk to workers.

Not minor if:      If the worker had received a dose of greater than 5 rem or if the doses resulted from a failure in the licensee program to maintain worker doses as low as is reasonably achievable.

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03. Non-significant Dimensional, Time, Calculation, or Drawing Discrepancies

Minor violations that would be characterized by minor discrepant values referred to in either a licensee's licensing or design documents.

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Example 03.01      A controlled design drawing shows a plug valve where a ball valve is actually installed. This deficiency occurred because of an oversight by the licensee. The valve design was changed to a ball valve, but the licensee failed to update the drawing.

Performance  
Deficiency:      The licensee failed to update a drawing to show the type of valve installed as required by procedure.

Minor because:    This is a non-significant drawing deficiency.

Not minor if:      Operation of the system was adversely affected by the difference in valves.

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Example 03.02      A licensee procedure required that all valves specified on a locked valve list be indicated as locked on the plant drawings. Inspectors identified valves on the locked valve list that were not indicated as locked on the plant drawings. All valves on the locked valve list were properly positioned and locked, as determined by field verification.

Performance  
Deficiency:      The licensee failed to indicate certain locked valves on plant drawings.

Minor because:    All valves required to be locked were locked and properly positioned.

Not minor if:      A valve was in the required position but not locked as a result of an operator referencing a drawing that did not show the valve was required to be locked.

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Example 03.03      The licensee's security fence is required to be 12 feet tall. The NRC discovers that, in one section, the fence is only 11 feet, 10 ½ inches tall.

Performance  
Deficiency:      The licensee failed to measure accurately the height of a security fence resulting in a fence shorter than required.

Minor because:    The fence fulfilled its intended function.

Not minor if:      The fence was significantly shorter such that it would not perform its intended function.

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#### 04. Insignificant Procedural Errors

Minor violations include isolated procedural errors or inadequate procedures that have no impact on items relied on for safety (IROFS) or other controls.

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Example 04.01      An inspector found that annual audit of emergency plan implementation did not review the adequacy of changes to certain emergency plan implementing procedures. The licensee reviewed the procedure changes not covered in the audit and found no problems.

Performance  
Deficiency:      The licensee failed to adequately audit changes to certain emergency plan implementing procedures.

Minor because:      No problems were identified and the revisions of the procedure changes that were not audited.

Not minor if:      The procedure changes that were not evaluated were in a condition that would impact negatively the licensee's response to an emergency.

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#### 05. Work in Progress Issues

These minor performance deficiencies occurring and identified in the course of performing work or maintenance on equipment that is out of service and has no safety consequences, and the performance deficiency is identified and corrected prior to returning the equipment to service and/or declaring the equipment operable.

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Example 05.01      During installation of a modification, the licensee failed to follow the installation procedures and a check valve is installed backwards. Quality control did not find the error. During a post-modification test, prior to returning the system to service, the licensee discovered the problem.

Performance  
Deficiency:      The licensee failed to correctly translate the design to the as-built configuration.

Minor because:      It is work in progress and there are no safety consequences.

Not minor if:      The system was returned to service with the valve installed backwards.

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Example 05.02      A solenoid valve that did not meet the baseline design criteria (Part 70, Subpart H) as specified in the purchase specification was screened through

receipt inspection and placed in the warehouse. When the solenoid valve was withdrawn to be installed, a licensee technician noted that it was not the correct type.

Performance

Deficiency: The licensee's procedures established controls to prevent parts that do not meet the baseline design criteria from being used inadvertently. The procedure was not followed, and the wrong part could have been installed.

Minor because: It was work in progress and no adverse consequences resulted.

Not minor if: The solenoid valve was installed and the system returned to service with the incorrect part, and without an evaluation of equivalency.

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06. Occupational and Public Radiation Safety

The NRC's regulatory framework is structured to provide a series of radiation protection barriers and protective measures (e.g., training, procedures, ALARA programs, radiation surveys, worker briefings, area postings, monitoring requirements, etc.) that, in combination, ensure adequate protection of occupational and public health and safety.

A performance deficiency in the implementation of one aspect of a radiation protection control is generally minor if it results in a minimal reduction in the overall adequacy of the protection of health and safety. However, a performance deficiency involving more than one control or the loss of a significant control would be determined to be a more-than-minor performance deficiency.

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Example 06.01 A licensee properly performed a radiation survey, but the survey was not documented.

Performance

Deficiency: A single, specific radiation survey was not documented as required by Health Physics procedures.

Minor because: The survey was actually performed and proper radiological controls were established.

Not minor if: The lack of the specific survey record led to a situation (e.g., supervision or health physics technicians being unaware of radiological conditions) that resulted in the failure to establish radiological controls and led to a reasonable likelihood of significant unplanned or unintended dose to an individual.

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Example 06.02 Radiation detection instruments (e.g., portable instruments or installed area radiation monitors) were not calibrated properly or not response checked prior to use in accordance with site procedures.

Performance  
Deficiency: Radiation protection instrumentation was not calibrated properly or was not response checked prior to use.

Minor because: When recalibrated or response checked, the as-found condition of the instrument was within acceptance criteria for the calibration or response check, or provided conservative measurement (i.e., over-response). Also, if the installed area radiation monitor would have performed its alarm function within a reasonable level of safety margin considering the overall level of radiological hazard being monitored.

Not minor if: When recalibrated or response checked, the as-found condition of the instrument was not within acceptance criteria for the calibration or response check and did not provide conservative measurement, or if the installed area radiation monitor would not have performed its safety function within a reasonable level of safety margin considering the overall level of radiological hazard being monitored.

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Example 06.03 Deficiencies were found (a) in the calibration of radiation monitoring instrumentation or (b) in the establishment of associated alarm set points, either of which are used for effluent control/monitoring associated with normal operations (i.e., non-emergency planning (EP) program activities).

Performance  
Deficiency: (a) Instruments or equipment used for effluent monitoring were not properly calibrated; or (b) the alarm set points were incorrectly established.

Minor because: The effluent monitor with its alarm set point still would have allowed the instrumentation to perform its intended function (e.g., trip or alarm function) to prevent an instantaneous effluent release in excess of the applicable limits.

Not minor if: The effluent monitor with its alarm set point would have failed to perform its intended function (i.e., ventilation trip or isolation) to prevent an instantaneous effluent release in excess of the applicable limits.

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Example 06.04 A Health Physics technician provided job coverage or performed a task that the technician was not fully qualified to perform (e.g., a task performance qualification was not completed as required, or the Health Physics technician did not have adequate experience).

Performance  
Deficiency: The licensee did not utilize qualified and trained Health Physics technicians per license requirements.

Minor because: Either no errors or only minor errors were made by the Health Physics technician, who had completed basic Health Physics technician training. The work performed by the technician (e.g., radiological surveys and

monitoring) provided a reasonable level of radiological protection and monitoring.

Not minor if: The work performed by the technician did not provide a reasonable level of radiological protection and monitoring.

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Example 06.05 A contaminated item (e.g., tool) containing detectable licensed radioactive material (RAM) was not surveyed properly and was released from further radiological control. In this example, the area where there were no further radiological tool controls was the area outside the boundary of licensee-defined radiation control area (RCA), where surveys are performed for release of tools and items from the RCA. The inadequate survey was later discovered.

Performance Deficiency: The licensee failed to survey an item containing RAM with reasonable survey techniques appropriate for the item and the type of radioactive material prior to release from the RCA.

Minor because: An additional survey concluded that the item contained radioactive material with fixed alpha radioactive contamination that did not exceed license limits.

Not minor if: The follow-up survey determined that the measured contamination level is above license limits for items outside the RCA,, and this resulted in the spread of contamination outside the RCA.

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Example 06.06 A locked access to a posted High Radiation Area (HRA) was circumvented (e.g., a gate was left tied open). The highest actual radiation level was less than 100 mrem/hr at 30 cm.

Performance Deficiency: Access to a posted HRA was not controlled in accordance with site procedures in that a gate was tied open rather than locked closed.

Minor because: The HRA was conservatively posted (i.e., the radiological conditions did not actually constitute a HRA area in accordance with the regulatory definition of a HRA).

Not minor if: The radiation levels exceeded 100 mrem/hr at 30 cm (i.e., a HRA actually existed and entrance was not locked).

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Example 06.07: A worker entered an airborne radioactivity area without signing the radiation work permit (RWP) for entry (i.e., not in accordance with the license requirements and plant procedures).

Performance Deficiency: The worker failed to sign the RWP prior to entry.

Minor because: The individual was authorized for entry into an airborne radioactivity area (e.g., authorized by radiation protection personnel, trained, on bioassay program, etc.), was made aware of the radiological conditions in the area (e.g., during a pre-job briefing or a review of airborne radioactivity survey results), but the individual signed in on the wrong RWP, and complied with the instructions of the correct RWP.

Not minor if: The individual was not authorized to enter the area or; the individual was authorized for entry, but was not made aware of the radiological conditions (e.g., did not get briefed or did not review radiological surveys) or; the individual was authorized to enter the area, was made aware of the radiological conditions and given specific radiological instructions, but took unauthorized actions that significantly changed the radiological conditions.

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## 07. Criticality Safety

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Example 07.01: The licensee reported that a Non-Favorable Geometry container (NFG) had been created by introducing a laundry cart into the NFG-prohibited chemical area. The inspectors reviewed the event and corrective actions and noted that the cart had six slits in the bottom for drainage so that the likelihood of liquid collection in the cart was very low.

Performance  
Deficiency:

A plant procedure requires pre-approval for NFG containers in the chemical area. The technician introduced a NFG container without approval in violation of the procedure.

Minor because: The container with six slits in the bottom could not have collected enough liquid of concern.

Not minor if: If the container did not have slits in the bottom and was used to collect liquids increasing likelihood of a criticality accident.

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Example 07.02: The licensee failed to post the pellet storage area in a manner which was clearly visible and readable. Specifically, the posting for the pellet storage area was placed on a shelf upside down such that the posting was completely obstructed and could not be read.

Performance  
Deficiency:

The licensee failed to post the pellet storage area in a manner which was clearly visible and readable. The involved procedure states, in part, that postings shall be in the work area in a conspicuous location, visible from the standard working area or entry and in a manner which is clearly visible and readable. The posting in the pellet storage area did not satisfy the conditions applicable to a posting.

Minor because: The performance deficiency does not indicate that, due to inadequate posting, any unsafe condition arose or that the actions of workers in the area were improper or indicated inadequate training.

Not minor if: The inspector noted that unauthorized personnel were accessing the area because the posting was not visible and/or involved personnel were not aware of the hazards involved.

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08. Chemical Process Safety

Later

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09. Emergency Preparedness

The following examples are violations of the license requirements as found in the Emergency Plan. The failure to implement the Emergency Plan requirement(s) involving agreement letters, maintenance of emergency kits, offsite coordination, and emergency response training, when minor issues, did not impact the health and safety of the plant workers, the public, or the environment.

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Example 09.01 The inspector requested to review the agreement letter with the offsite Volunteer Fire Department (VFD) to verify that an agreement was in effect detailing the type of support provided by the offsite VFD, the type of training provided to the offsite VFD by the licensee, and the frequency for reviewing and updating the agreement.

Performance Deficiency: The license requires in part, the licensee shall maintain and execute the response measures in the Emergency Plan. The Emergency Plan, "Local Offsite Assistance", requires in part that "Agreement Letters are renewed every four years." The agreement letter for the offsite VFD was last updated and reviewed five years ago.

Minor because: The offsite and onsite contacts assigned the responsibility for maintaining the agreement are current in that they were the signatories to the most recently expired agreement letter and when interviewed regarding the agreement, the offsite contact for support services acknowledged that the support and services agreed to in the previous letter remained in effect.

Not Minor if: The offsite VFD management had changed due to a turnover in staffing and the current offsite VFD were unaware of the previously agreed upon commitments or no training or site familiarization tours were offered.

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Example 09.02 The inspector examined an emergency response kit to determine the adequacy of contents and operational readiness status of the emergency equipment stored inside the kit. Three air samplers and electronic dosimeters were found out of calibration. The calibration sticker showed

that the air sampler was last calibrated more than a year ago and no determination could be made regarding the last calibration performed on the dosimeters as there was no calibration documentation available.

Performance  
Deficiency:

Three air samplers and electronic dosimeters were not calibrated at the required frequency. A license condition requires in part, the licensee shall maintain and execute the response measures in the Emergency Plan. The Emergency Plan states in part that "Inventory and maintenance is carried out in accordance with approved procedures." Emergency Equipment Procedure, "Radiation and Contamination Survey Instruments" requires in part that instruments shall be calibrated on a semi-annual basis.

Minor because:

Emergency response kits with identical but calibrated equipment and contents were available elsewhere onsite and accessible to emergency response personnel. In addition, several backup survey instruments, air samplers and dosimeters were available in the Radiation Safety office. The equipment with the expired calibration sticker was checked pre-calibration and determined to be within the calibration range and deemed operational.

Not Minor if:

Other calibrated emergency equipment or emergency kits with calibrated equipment were not available and/or not accessible to responder. The equipment with the expired calibration sticker was checked and determined to be outside of the calibration range enough to impact the decisions for which the equipment was used to supply input.

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Example 09.03.:

The inspectors observed that no offsite response organizations were present to observe or participate in the biennial graded exercise and that the licensee simulated contact with these organizations. The inspectors reviewed the licensee's preparations for the biennial exercise through discussions with the health physics specialist, who had responsibility for coordination of emergency preparedness. These discussions revealed that the requirement to invite the responsible offsite response organizations to participate in the exercise had been overlooked.

Performance  
Deficiency:

The licensee did not invite the responsible offsite response organizations to participate in the exercise. Regulations require that the licensee invite offsite response organizations to participate in biennial onsite emergency exercises.

Minor because:

The offsite response organization is not required by any regulatory agency (NRC, FEMA, and EPA) to participate in the exercise. The licensee is required to offer the opportunity to participate, but the offsite organization is not required or obligated to participate.

Not Minor if:

The offsite response organizations had requested and expressed an interest in participation in training, drills, and or exercises but the licensee

had not been responsive to the requests from offsite support groups. During an actual event, the response by an offsite support group and/or the coordination between the licensee and the offsite support group resulted in an inadequate response to protect the plant, workers, public, and the environment.

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Example 09.04      The inspector determined that an individual assigned as an alternate to the emergency organization with responsibility to maintain a chronological listing and sequence of the events was not trained in accordance with the Emergency Plan requirements. Three other individuals including the primary assigned to the position were trained. The licensee's Emergency Plan required that all members of the emergency organization be trained annually.

Performance  
Deficiency:      An individual was not trained at the required frequency. The license requires in part that the licensee shall maintain and execute the response measures in the Emergency Plan. The Emergency Plan, in "Emergency Response Organization Training", states in part that "training regarding the actions required to be performed during an emergency will be provided on an annual basis." One individual was last trained two years prior to the date of the inspection.

Minor because:      There were three other individuals assigned this role in the emergency organization with current training qualifications. The responsibility associated with this position did not involve risk significant activity or decision-making.

Not Minor if:      There were no other individuals assigned this role in the emergency organization with current training qualifications. The responsibility associated with this position involved risk significant activity or decision-making.

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10.    Material Control and Accounting

Later

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11.    Information Security

Later

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12.    Physical Security

Later

ATTACHMENT 1

Revision History

Commitment Tracking Number	Issue Date	Description of Change	Training Needed	Training Completion Date	Comment Resolution Accession Number