

FINAL SUPPORTING STATEMENT
FOR
VOLUNTARY REPORTING OF PERFORMANCE INDICATORS

3150-0195

REVISION

Description of the Information Collection

The U.S. Nuclear Regulatory Commission (NRC) collects performance indicator (PI) information from commercial nuclear power plant licensees in accordance with the NRC's Reactor Oversight Process (ROP). Licensees voluntarily submit information related to selected performance indicators (PIs) to the NRC on a quarterly basis. Licensees submit PI information electronically to reduce burden on themselves and the NRC. The NRC meets monthly with public stakeholders, industry representatives, and the Nuclear Energy Institute (NEI)¹ to discuss ROP topics. Within these meetings, PI topics are discussed to improve or get clarification about the PI program, when necessary. These improvements or clarifications are proposed and reviewed with the PI FAQ process. NEI issues updated guidance to licensees for use in collecting and reporting PI information to the NRC based on the results of these meetings.

A. JUSTIFICATION

1. Need for and Practical Utility of the Collection of Information

In 1998, the nuclear power industry offered to voluntarily send PI information to the NRC to improve the NRC's regulatory oversight process for nuclear reactors. Power reactor licensees were already collecting and reporting PI information to various industry groups. In April 2000, the NRC began implementing the ROP, which provides for risk-informed, objective, predictable, and understandable oversight of commercial nuclear power plants. The ROP uses PIs and inspection results to provide objective indications of licensee performance and to inform the NRC's regulatory response. PIs measure the performance of plant systems and licensee programs in a risk-informed manner, where applicable. The use of PIs allows for a more effective allocation of industry and NRC resources needed to support NRC oversight.

Licensees retain PI records as long as necessary to calculate specific indicators, but do not have to retain these records for more than three years.

Licensees report PIs to the NRC that provide the number of unplanned scrams and power changes per 7,000 hours of critical operation, unplanned scrams with complications over the previous four quarters, safety system functional failures over the previous four quarters, non-conformances with 10 CFR Part 20 requirements for (very) high radiation areas or unintended personnel exposures over the previous four quarters, and occurrences of radiological effluent releases that exceeded values derived from radiological effluent technical specifications or offsite dose calculation manuals over the previous four quarters.

¹ NEI is a nuclear industry group that develops policy on legislative and regulatory issues affecting the industry.

Licensees report PIs to the NRC that provide the unavailability and unreliability of high pressure injection, heat removal, residual heat removal, emergency power, and cooling water support systems. Licensees also report PIs to the NRC that provide the percentages of reactor coolant activity and leakage with respect to technical specification limits; successful, accurate, and timely classifications, notifications, and protective action recommendations by the licensee's emergency response organization (ERO) during drills, exercises, and actual events over the previous eight quarters; key ERO members that participated in emergency drills, exercises, or actual events over the previous eight quarters; emergency response equipment that operated reliably in the preceding four quarters; and availability of security equipment.

Licensees also participate in the ROP Performance Indicator Frequently Asked Question (PI FAQ) process that it is used to resolve interpretation issues with NEI document 99-02, "Regulatory Assessment Performance Indicator Guideline." The PI FAQ process and white papers may also be used to propose changes to NEI 99-02 guidance and the PI Program. The NRC and industry review PI FAQs and white papers and work to achieve resolution during periodic public meetings. Inspection Manual Chapter (IMC) 0608 and Appendix E of NEI 99-02 contain additional information about the PI FAQ and white paper processes. PI FAQs and white papers that contain plant-specific security information will not be publicly available to help prevent provision of potentially useful information to a possible adversary.

2. Agency Use of Information

The NRC uses PIs to assess licensee performance and determine the appropriate level of regulatory response.

3. Reduction of Burden Through Information Technology

There are no legal obstacles to reducing the burden associated with this information collection. The NRC encourages respondents to use information technology when it would be beneficial to them. The NRC has issued [Guidance for Electronic Submissions to the NRC](#) which provides direction for the electronic transmission and submittal of documents to the NRC. Electronic transmission and submittal of documents can be accomplished via the following avenues: the Electronic Information Exchange (EIE) process, which is available from the NRC's "Electronic Submittals" Web page, by Optical Storage Media (OSM) (e.g., CD-ROM, DVD), by facsimile or by e-mail. It is estimated that approximately 100% of the responses are received through email and the data is submitted in a text file.

4. Effort to Identify Duplication and Use Similar Information

Licensees may report information similar to some PIs to meet other NRC requirements; however, this information may not be reported in a manner that would allow for timely and adequate implementation of the ROP. The industry prefers to report PIs separately from other reporting requirements to expedite the implementation of the ROP.

5. Effort to Reduce Small Business Burden

None of the respondents are small businesses.

6. Consequences to Federal Program or Policy Activities if the Collection is not Conducted or is Conducted Less Frequently

The reporting of PIs provides an efficient and effective mechanism for the NRC to obtain information that is essential to an effective oversight program. Less frequent collection of this information would result in increased licensee burden as the NRC would be required to increase the number of inspections at licensee facilities to obtain the information currently provided by the reporting of PIs.

7. Circumstances Which Justify Variation from OMB Guidelines

This information collection does not vary from OMB guidelines.

8. Consultations Outside the NRC

Opportunity for public comment on the information collection requirements for this clearance package was published in the Federal Register on March 5, 2024, (89 FR 15903). Additionally, NRC staff contacted five stakeholders via email. The stakeholders were operating reactor owner/operator licensees and industry representatives from Energy Northwest, Entergy, Evergy, Florida Power & Light Co., and Nuclear Energy Institute.

No responses or comments were received as a result of the FRN or the staff's direct solicitation of comments.

9. Payment or Gift to Respondents

Not applicable.

10. Confidentiality of Information

Confidential and proprietary information is protected in accordance with NRC regulations at 10 CFR 9.17(a) and 10 CFR 2.390(b). However, the NRC does not request information normally considered confidential or proprietary for PI reporting purposes.

11. Justification for Sensitive Questions

Not applicable.

12. Estimated Burden and Burden Hour Cost

Table 1 reflects licensee burden to provide PI information (PI quarterly data submittals and PI FAQs). The estimates include time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the information collection; however, the estimates include only additional hours needed above those already expended by licensees to report indicators to the Institute of Nuclear Power Operations or to comply with other regulatory requirements, such as the Maintenance Rule or event reporting.

- Estimates are based on 94 operating reactors. The NRC assumes there will be one response per reactor unit on a quarterly basis ($4 \times 94 = 376$ annual responses) and that each response will require 215 hours of effort. Thus, the total reporting burden is 80,840 hours (376 responses \times 215 hrs/response), and costs are estimated at \$24,252,000 (80,840 hours \times \$300/hour).
- For the PI FAQ process, the NRC receives an average of (3) PI FAQs each year. Each PI FAQ preparation takes an estimated amount of 40 hours of effort. Thus, the total estimated reporting burden is 120 hours (3 submittals \times 40 hrs/response), and costs are estimated at \$36,000 (120 hours \times \$300/hour).

Table 2 reflects the licensee recordkeeping burden for PI quarterly data submittals and PI FAQs. The recordkeeping estimate includes time to maintain utility procedures and occasionally refine the PIs and related procedures to incorporate improvements learned from experience. Procedure development and recordkeeping are performed by each utility or parent company. Based on the information provided in NUREG-1350, "2022-2023 Information Digest," Volume 34, dated February 2023, 21 parent companies exist for operating reactors.

- The industry estimates 50 hours of annual recordkeeping time per parent company, for a total of 1,050 hours (21 recordkeepers \times 50 hours per recordkeeper) and a cost of \$315,000 (1,050 hrs \times \$300/hour).
- The industry estimates 8 hours of record keeping time per PI FAQ, for a total of 24 hours in average per year (3 PI FAQs \times 8 hours per PI FAQ) and a cost of \$7,200 (24 hrs \times \$300/hour).

The total number of hours for the reporting and recordkeeping burden for the PI program (including the PI quarterly data submittals and PI FAQs) is 82,034 (80,960 hours reporting + 1,074 hours recordkeeping), and the total cost is \$24,610,200 (82,034 hours \times \$300/hour).

The \$300 hourly rate used in the burden estimates is based on the Nuclear Regulatory Commission's fee for hourly rates as noted in 10 CFR 170.20 "Average cost per professional staff-hour." For more information on the basis of this rate, see the Revision of Fee Schedules, Fee Recovery for Fiscal Year 2023 (88 FR 39120, June 15, 2023).

13. Estimate of Other Additional Costs

The NRC has determined that the quantity of records to be maintained is roughly proportional to the recordkeeping burden and, therefore, can be used to calculate approximate records storage costs. Based on the number of pages maintained for a typical clearance, the records storage cost has been determined to be equal to 0.0004 times the recordkeeping burden cost. Because the recordkeeping burden is estimated to be 1,074 hours, the storage cost for this clearance is \$129 (1,074 hours \times 0.0004 \times \$300/hour).

14. Estimated Annualized Cost to the Federal Government

For the PI quarterly data submittal process, the NRC staff estimates a burden of approximately 8 hours per quarter receiving and processing the PI data. Thus, the total reporting estimated burden is 32 hours (8 hours x 4 quarters), and costs are estimated at \$9,600 (32 hours x \$300/hour). For the PI FAQ process, the NRC staff estimates a burden of approximately 40 hours for the review and response proposal process. Thus, the total reporting estimated burden is 120 hours (40 hours x 3 PI FAQs/year), and costs are estimated at \$36,000 (120 hours x \$300/hour). The total cost is estimated at \$45,600 (152 hours x \$300/hour).

15. Reasons for Change in Burden or Cost

The burden is projected to increase from 77,734 hours and 380 responses to 82,034 hours and 400 responses, which is an increase of 4,300 hours and an increase of 20 responses. The increased burden is due to an increase in the number of reactors anticipated to report PI data, from 89 reactors to 94.

Performance Indicator EP03 - Alert and Notification System (ANS) will be phased out in 2024 and will be replaced by EP04 - Emergency Response Facility and Equipment Readiness (ERFER), these system changes do not affect the reporting requirements or burden. See Appendix A for a list of all PIs.

In addition, the hourly cost has increased from \$279/hr to \$300/hr.

16. Publication for Statistical Use

The agency has developed a dashboard to display ROP data on the NRC's public website in a manner that easily navigated by members of the public. The dashboard uses already available data and will not require the collection of any additional information. PI data is available at <https://www.nrc.gov/reactors/operating/oversight/pi-summary.html>.

As part of the agency's Open Government Plan, high-value datasets have been identified for public review at <https://www.nrc.gov/data> and the wider <https://www.data.gov>. Operating reactor performance indicators are one such dataset. The raw performance indicator data submitted quarterly is shared to these resources under the Open Government Plan. This effort only uses already collected performance indicator information and does not involve any additional information collection related to performance indicators.

17. Reason for Not Displaying the Expiration Date

The expiration date will be displayed.

18. Exceptions to the Certification Statement

Not applicable.

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

Not applicable.

TABLE 1
Annual Reporting Burden

	Number of Respondents	Responses per Respondent	Total Responses	Burden per Response	Total Annual Burden Hours	Cost at \$300/hour
PI Reporting	94	4	376	215	80,840	\$24,252,000
PI FAQ	3	1	3	40	120	\$36,000
Total	94	-	379	-	80,960	\$24,288,000

TABLE 2
Annual Recordkeeping Burden

	Number of Recordkeepers	Hours per Recordkeeper	Total Annual Burden Hours	Cost at \$300/hour
PI Recordkeeping	21	50	1,050	\$315,000
PI FAQ	3	8	24	\$7,200
Total	21	-	1,074	\$322,200

Total Annual Burden: 82,034 (80,960 hours reporting + 1,074 hours recordkeeping)
Total Burden Hour Cost: \$24,610,200 (82,034 hours x \$300/hour)
Total Responses: 400 (379 responses plus 21 recordkeepers)

APPENDIX A
DESCRIPTION OF REQUIREMENTS
PERFORMANCE INDICATORS

There are three PIs in the initiating events cornerstone:

- **Unplanned Scrams (IE01)** – The number of unplanned scrams during the previous four quarters, both manual and automatic, while critical per 7,000 hours. The scram rate is calculated per 7,000 critical hours because that value is representative of the critical hours of operation in a year for a typical plant.
- **Unplanned Power Changes (IE03)** – The number of unplanned changes in reactor power of greater than 20-percent full-power, per 7,000 hours of critical operation, excluding manual and automatic scrams.
- **Unplanned Scrams with Complications (IE04)** – The number of unplanned scrams while critical, both manual and automatic, during the previous four quarters require additional operator actions as defined by the flowchart in [NEI 99-02 Rev 7](#) , "Regulatory Assessment Performance Indicator Guideline."

There are currently six PIs in the mitigating systems cornerstone:

- **Safety System Functional Failures (MS05)** - The number of events or conditions that alone prevented, or could have prevented, the fulfillment of the safety function of structures or systems in the previous four quarters.
- **Emergency AC Power Systems (MS06)** - The sum of the unavailability of the emergency AC power plus the unreliability for the emergency AC power system during the previous 12 quarters.
- **High Pressure Injection Systems (MS07)** - The sum of the unavailability of the high pressure injection system plus the unreliability for the high pressure injection system during the previous 12 quarters.
- **Heat Removal Systems (MS08)** - The sum of the unavailability of the heat removal system plus the unreliability for the heat removal system during the previous 12 quarters.
- **Residual Heat Removal Systems (MS09)** - The sum of the unavailability of the residual heat removal system plus the unreliability for the residual heat removal system during the previous 12 quarters.
- **Cooling Water Systems (MS10)** - The sum of the unavailability of cooling water systems plus the unreliability for the cooling water systems during the previous 12 quarters.

There are two PIs in the barrier integrity cornerstone:

- **Reactor Coolant System (RCS) Specific Activity (BI01)** - The maximum monthly RCS activity in microcuries per gram dose equivalent Iodine-131 per the technical specifications, expressed as a percentage of the technical specification limit.
- **Reactor Coolant System (RCS) Leakage (BI02)** - The maximum RCS identified Leakage in gallons per minute each month as defined in technical specifications, expressed as a percentage of the technical specification limit.

There are three PIs in the emergency preparedness cornerstone:

- **Drill/Exercise Performance (EP01)** - The percentage of all drill, exercise, and actual opportunities that were performed timely and accurately during the previous eight quarters.
- **Emergency Response Organization (ERO) Drill Participation (EP02)** - The percentage of key ERO members that have participated in a drill, exercise, or actual event during the previous eight quarters, as measured on the last calendar day of the quarter.
- **Alert and Notification System Reliability (EP03)** - The percentage of ANS sirens that are capable of performing their function, as measured by periodic siren testing during the previous 12 months. Periodic tests are the regularly scheduled tests that are conducted to actually test the ability of the sirens to perform their function (e.g., silent, growl, siren sound test). **(Phased out during 2024)**
- **Emergency Response Facility and Equipment Readiness (EP04)** - The number of occurrences during a quarter that a Risk Significant Planning Standard (RSPS) function could not be performed for greater than 168 continuous hours due to an issue with an emergency response facility or piece of emergency response equipment. **(Phased in during 2024)**

There is one PI in the public radiation safety cornerstone:

- **Radiological Effluent Technical Specifications/Offsite Dose Calculation Manual (RETSS/ODCM) (PR01)** - Radiological effluent release occurrences per reactor unit that exceed the values listed below:
 - Liquid Effluents
 - Whole Body - 1.5 millirems per quarter (mrem/qtr)
 - Organ—5 mrem/qtr
 - Gaseous Effluents
 - Gamma Dose - 5 millirads per quarter (mrad/qtr)
 - Beta Dose - 10 mrad/qtr
 - Organ Doses from I-131, iodine-133, tritium, & particulates - 7.5 mrem/qtr

There is one PI in the occupational radiation safety cornerstone:

- **Occupational Exposure Control Effectiveness (OR01)** - The PI for this cornerstone is the sum of the following:
 - Technical specification high radiation area occurrences
 - Very high radiation area occurrences
 - Unintended exposure occurrences

There is one PI in the security cornerstone:

- **Protected Area Security Equipment (PP01)**

The security cornerstone is an important component of the ROP, which includes various security inspection activities the NRC uses to verify licensee compliance with Commission regulations and thus ensure public health and safety.

The Commission determined in the staff requirements memorandum (SRM) for SECY-04-0191, "Withholding Sensitive Unclassified Information Concerning Nuclear Power Reactors from Public Disclosure," dated November 9, 2004, that specific information related to findings and performance indicators associated with the security cornerstone will not be publicly available to ensure that security-related information is not provided to a possible adversary. Security inspection report [cover letters](#) will be available on the NRC Web site; however, security-related information on the details of inspection finding(s) will not be displayed.

GUIDANCE DOCUMENTS FOR
VOLUNTARY REPORTING OF PERFORMANCE INDICATORS

3150-0195

Title	Accession number
IMC 0608: Performance Indicator Program	ML19025A257
NEI 99-02, Rev 7: Regulatory Assessment Performance Indicator Guideline	ML13261A116