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,

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

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.

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; sirens 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 99-02. 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. 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 January 8, 2021 (86 FR 1544). Additionally, NRC staff contacted five stakeholders via email. The stakeholders were reactor owner licensee representatives and third-party interested stakeholders from Energy Northwest, Entergy Nuclear Operations, Inc., Evergy Electric Services Co., Florida Power & Light Co. and the Nuclear Energy Institute (NEI).

   The NRC received one letter with comments from NEI, "Information Collection: Voluntary Reporting of Performance Indicators [Docket NRC-2020-0185]" (ADAMS Accession Number ML21089A090). Prior to submitting comments, NEI conducted a survey of its members regarding burden estimates for submitting quarterly performance indicators. This survey was conducted independently and without NRC staff knowledge. The NRC staff followed up with a call to the commenter to obtain clarification on the comments received. The following is a summary of NEI comments and NRC staff responses:

   Comment #1. Redefining Trains - Redefining trains in the Institute of Nuclear Power Operations (INPO) Industry Reporting and Information System (IRIS) system to support Unavailability Index (UAI) & Unreliability Index (URI) calculations for submittal to the NRC for the Mitigating System Performance Index (MSPI) performance indicator.

   This infrequent activity is generally performed after the plant has completed a modification to improve MSPI margin and baseline core damage frequency (CDF) by installing an additional train. This needs to be done following installation in the plant and the quarter before the new probabilistic risk assessment (PRA) values are to be used in the MSPI calculation. This laborious exercise requires an individual fluent in IRIS as well as the cognizant engineer fully engaged for several days. This will also result in a change to the PRA values in IRIS. Revising those values is a demanding, non-routine task that requires diligence and attention to detail (i.e., time).

   NRC Staff Response. The NRC staff acknowledges that redefining trains would require

additional effort that would go over the 200 hours burden response. However, not every site will have to perform such activity frequently. We obtained information that showed that an average of 6 plants per year submit redefined trains. Based on this information, the NRC staff decided to slightly adjust the burden per response hours by adding an additional 5 hours per quarter.

Comment #2. Changes to the Security PI - Changes to the closed-circuit television (CCTV) and intrusion detection system (IDS) normalization factors must be made in accordance with a similar, though somewhat less laborious and challenging process. This is not a routine activity.

NRC Staff Response. After discussions with the commenter, it was determined that this activity is not required for the data gathering for the voluntary reporting of performance indicators program. Based on this information, the NRC concluded that no burden per response adjustment was needed.

*Comment #3. Reportability Evaluations - S*everal times a year, a station will need to determine if an event or condition is reportable under an NEI 99-02 performance indicator. While these internal evaluations are most often associated with MSPI, several other indicators frequently reach this threshold, as well. Examples include the performance indicators for Unplanned Scrams per 7,000 Critical Hours (identified in NEI 99-02 as IE01); Unplanned Power Changes per 7,000 Critical Hours (IE03); and Unplanned Scrams with Complications (IE04). These internal evaluations may require research into the history of previous discussions with the NRC on related Frequently Asked Questions (FAQs), management presentations, use of consultants, and industry peer reviews.

These could be needed up to a dozen times per station per year. Developing each position paper could take up to twenty hours. Industry experts could be engaged as well. This is generally followed by station, fleet and industry peer reviews and "challenge" meetings, each taking an hour with up to six reviewers at each challenge meeting.

NRC Staff Response. The NRC staff acknowledges that reportability evaluations would require additional effort that would go over the 200 hours burden response. The commenter provided details on additional steps and meetings required to determine reportability for PIs. However, not every site follows the same steps and meetings or amount of time to evaluate. Based on this information, the NRC staff decided to slightly adjust the burden per response hours by adding an additional 5 hours per quarter.

Comment #4. Quarterly Submittals - Performance indicator data is submitted to the NRC on a quarterly basis. The quarterly submittal requires raw data entry, independent review and approval of the entered data, data locking, and tracking the status of reports. For the current NRC request on the burden of the information collection, NEI surveyed members on the burden associated with this step and found there was a great variance in the burden experienced by NEI members. As best we can tell, the NRC estimate of 72,712 hours of industry burden noted in 86 FRN 2144 appears to reflect only the burden of the quarterly submittals to NRC.

NRC Staff Response. After discussions with the commenter, it was determined that the proposed burden per response of 200 hours already established includes hours to cover the quarterly submittal activities. Based on this information, the NRC concluded that no burden

per response adjustment was needed.

Comment #5. PI Challenge Meetings - Because the performance indicator data is subject to NRC requirements for accuracy and completeness (10 CFR 50.9), most stations conduct a performance indicator challenge meeting. These meetings typically involve the participation of multiple Data Stewards, their managers, and the site leadership team. Preparation for these meetings can take several hours to develop the necessary presentation packages and assure the quality of the planned submittal.

NRC Staff Response. After discussions with the commenter, it was determined that the proposed burden per response of 200 hours already established includes hours to cover the quarterly submittal activities. Based on this information, the NRC concluded that no burden per response adjustment was needed.

Comment #6. Data Steward Training - Data Stewards are the individuals assigned responsibility for collecting the plant raw data needed for NEI 99-02 reporting. These individuals need training on NEI 99-02, approved FAQs, and the station process for collecting information and submitting it to the INPO IRIS system. Accuracy of information being submitted is a key part of this training. This training varies and can be as low as a few hours, or up to several days. Because of high turnover in the Data Steward positions in recent years, most stations are spending more resources in Data Steward training than when the NRC last updated its estimate of the information collection burden.

NRC Staff Response. The NRC staff acknowledges that data steward training would require additional effort that would go over the 200 hours burden response. The commenter explained to us that this position has a high turnover rate and that in average they would train a new person for the position twice a year. However, not every site will have the same amount of turnover. Based on this information, the NRC staff decided to slightly adjust the burden per response hours by adding an additional 5 hours per quarter.

Comment #7. FAQ Submittals - In recent years, the number of FAQs submitted by licensees has been small. Hence, for most licensees submitting an FAQ is an infrequent occurrence. When an FAQ submittal is being considered, the licensee will perform research similar to that described above for Reportability Evaluations. The review and challenge of a FAQ is similar to the Reportability Evaluations listed above. Therefore, the level of effort for an FAQ submittal is also similar to that described above. In addition to the burden that falls on the licensee submitting an FAQ, each FAQ creates a burden on the industry's other licensees who participate in the NEI Reactor Oversight Process Task Force. The ROP Task Force serves as the industry's authority for final review and approval of FAQs submitted to the NRC. The industry representatives who comprise the ROP Task Force typically spend about two days each month reviewing and commenting on materials pertaining to FAQs and monthly interactions with the NRC staff on changes in and issues arising from the ROP.

NRC Staff Response. After discussions with the commenter, it was determined that the proposed burden per response of 40 hours already established includes hours to cover the quarterly submittal activities. Based on this information, the NRC concluded that no burden per response adjustment was needed.

Comment #8. NEI encourages the MAP-X team of the NRC's Embark Venture Studio to include NEI 99-02 reporting in the scope of their efforts to develop web-based solutions to

streamline industry reporting and to support the NRC's vision of "big data" being available. Of course, any such developments would have to be coordinated with industry and INPO.

NRC Staff Response. The NRC will take this recommendation into consideration.

In conclusion, based on the comments received and discussions with the commenter, the NRC staff will increase the burden per response from 200 hours to 215 hours per quarter.

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 89 operating reactors. The NRC assumes there will be one response per reactor unit on a quarterly basis (4 x 89 = 356 annual responses) and that each response will require 215 hours of effort. Thus, the total reporting burden is 76,540 hours (356 responses x 215 hrs/response), and costs are estimated at $21,354,660 (76,540 hours x $279/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 x 40 hrs/response), and costs are estimated at $33,480 (120 hours x $279/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, "2020-2021 Information Digest," Volume 32, dated October 2020, 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 x 50 hours per recordkeeper) and a cost of $292,950 (1,050 hrs x $279/hour).

- The industry estimates 8 hours of record keeping time per PI FAQ, for a total of 24 hours in average per year (3 recordkeepers x 8 hours per recordkeeper) and a cost of $6,696 (24 hrs x $279/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 77,734 (76,660 hours for reporting + 1,074 hours for recordkeeping), and the total cost is $21,687,786 (77,734 hours x $279/hr).

The $279 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 2020 (85 FR 37250, June 19, 2020).

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 $120 (1,074 hours x 0.0004 x $279/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 $8,928 (32 hours x $279/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 $33,480 (120 hours x $279/hour). The total cost is estimated at $42,408(152 hours x $279/hour).

15. Reasons for Change in Burden or Cost

The burden is projected to slightly increase from 76,350 hours for 399 responses to 77,734 hours for 380 responses, which is an increase of 1,384 hours and a decrease of 19 responses. The previous burden of 76,350 hours was based on 94 licensees responding quarterly. The current burden estimate of 77,734 hours is based on 89 licensees responding quarterly, due to the permanent cession of operation at 5 plants. This burden change includes an increase of 15 hours in the burden per response from 200 hours to 215 hours. Also, this current burden includes the added burden of the Performance Indicator

FAQ process. The FAQ process added 120 hours per year for an average of 3 FAQs submitted per year and 24 hours for FAQ recordkeeping process.

In addition, the hourly cost has increased from $263/hr to $279/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 is far more easily navigated by members of the public than the current display of information. This dashboard is currently in beta testing but will be available on the NRC's public website during the time period of this clearance extension. The dashboard will use already available data and will not require the collection of any additional information.

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 $279/hour
PI Reporting	89	4	356	215	76,540	$21,354,660
PI FAQ	3	1	3	40	120	$33,480
Total	89	-	359	-	76,660	$21,388,140

TABLE 2
Annual Recordkeeping Burden

	Number of Recordkeepers	Hours per Recordkeeper	Total Annual Burden Hours	Cost at $279/hour
PI Recordkeeping	21	50	1,050	$292,950
PI FAQ	3	8	24	$6,696
Total	21	-	1,074	$299,646

Total Annual Burden: 77,734 (76,660 hours reporting + 1,074 hours recordkeeping)
Total Burden Hour Cost: $21,687,786 (77,734 hours x $279/hour)
Total Responses: 380 (359 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).

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:

    o Liquid Effluents
        - Whole Body—1.5 millirems per quarter (mrem/qtr)
        - Organ—5 mrem/qtr
    o 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:

    o Technical specification high radiation area occurrences
    o Very high radiation area occurrences
    o 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