ROP Bimonthly Public Meeting: Baseline Inspection Program Revision

September 18, 2025

Purpose, Outcome, Plan

Purpose of the Presentation

- To discuss proposed revisions to the ROP Baseline Inspection Program and Procedures.

Desired Outcome

- Communicate proposed revisions to the program and inspection procedures to industry and members of the public.

Agenda

1. Proposed Revisions
2. Resource Impact & FTE Savings
3. Timeline
4. Q&A / Discussion

Total Inspection Procedure Reductions as Part of the ROP Baseline Inspection Program Revision

Office/Program	From	To
NRR/Reactor Safety	21	12
NRR/Radiation Protection	7	4
NSIR/Security	11	7
NSIR/Emergency Preparedness	8	7
Grand Total	**47**	**30**

NRR IPs Maintained/Sunset

KEY MESSAGES

- 21 IPs currently used for the NRR ROP BIP
- 5 IPs will be sunset
  - 71111.06, Flood Protection Measures (attributes shifted to .01 and .04)
  - 71111.07, Heat Exchanger/Sink Performance (attributes shifted to .24)
  - 71111.12, Maintenance Effectiveness (requirements shifted to .24)
  - 71111.18, Plant Modifications (attributes shifted to .04, .11, engineering inspection)
  - 71151, Performance Indicator Verification (reduced verification shifted to Plant Status, or other IPs)
- The 5 engineering IPs will be consolidated into one newly developed IP
- **12 IPs will remain in use**

IP	Title	Issue Date	Action
71111.01	Adverse Weather Protection	8/1/2022	Maintain
71111.04	Equipment Alignment	9/19/2023	Maintain
71111.05	Fire Protection	8/1/2022	Maintain
71111.06	Flood Protection Measures	8/1/2022	**Sunset**
71111.07	Heat Exchanger/Sink Performance	8/18/2023	**Sunset**
71111.08	Inservice Inspection Activities	10/16/2023	Maintain
71111.11	Licensed Operator Requalification Program and Licensed Operator Performance	12/6/2024	Maintain
71111.12	Maintenance Effectiveness	3/31/2021	**Sunset**
71111.13	Maintenance Risk Assessments and Emergent Work Control	8/1/2022	Maintain
71111.15	Operability Determinations and Functionality Assessments – Effective January 1, 2026	4/9/2025	Maintain
71111.18	Plant Modifications – Effective Date January 1, 2025	11/21/2024	**Sunset**
71111.20	Refueling and Other Outage Activities	4/6/2022	Maintain
71111.21M	Comprehensive Engineering Team Inspection	6/27/2025	New IP
71111.21N.03	Commercial Grade Dedication	2/16/2023	**In new IP**
71111.21N.04	Age-Related Degradation	4/9/2025	**In new IP**
71111.21N.05	Fire Protection Team Inspection (FPTI)	6/12/2019	**In new IP**
71111.24	Testing and Maintenance of Equipment Important to Risk	3/7/2023	Maintain
71151	Performance Indicator Verification – Effective Date 01/01/2025	12/12/2024	**Sunset**
71152	Problem Identification and Resolution (PI&R)	10/31/2023	Alter
71153	Follow up of Events and Notices of Enforcement Discretion	9/16/2020	Maintain

NRR IPs Maintained/Sunset

Current IP No	Frequency	Title	Nominal Samples	Nominal Hours
71111.01	A	Adverse Weather Protection	3	17
71111.04	A	Equipment Alignment	13	60
71111.05	A	Fire Protection	22	50
71111.06	A	Flood Protection Measures	2	12
71111.07	A	Heat Exchanger	1	7
71111.08	Refuel	Inservice Inspection Activities (PWR)	2	86
71111.11B	B	Licensed Op Requal & Perform	1	96
71111.11Q	A	Licensed Op Requal & Perform	8	32
71111.12	A	Maintenance Effectiveness	9	108
71111.13	A	Maintenance Risk Assessments & Emergent Work Control	17	85
71111.15	A	Oper Determinations/Functionality	22	122
71111.18	A	Plant Modifications	4	32
71111.20	R	Refueling and Other Outage Activities	1	77
71111.21M	Quad	Comprehensive Engineering Team Inspection	28	490
71111.21N.03	Quad	Commercial Grade Dedication	12	210
71111.21N.04	Quad	Age-Related Degradation	12	210
71111.21N.05	Quad	Fire Protection Team Inspections (FPTI)	6	210
71111.24	A	Testing and Maintenance of Equipment Important to Risk	41	184
71151	A	Performance Indicator Verification	27	28
71152A	A	PI & R Annual	6	74
71152S	S	PI & R Semi Annual	2	20
711152B	B	PI&R Biennial Team Inspection	1	125
71153		Follow up of Events and Notices of Enforcement Discretion	6	80

Updated IP No	Frequency	Title	Min Samples	Min Hours
71111.01	A	Adverse Weather Protection	2	10
71111.04	A	Equipment Alignment	9	72
71111.05	A	Fire Protection	13	29
71111.08	A	Inservice Inspection Activities	2	80
71111.11Q	A	Licensed Op Requal & Perform	4	16
71111.11B	B	Licensed Op Requal & Perform	1	80
71111.13	A	Maintenance Risk Assessments & Emergent Work Control	10	50
71111.15	A	Operability Determinations/Functionality	18	112
71111.20	R	Refueling and Other Outage Activities	1	77
71111.24	A	Testing and Maintenance of Equipment Important to Risk and Maintenance Effectiveness	32	181
71152A	A	PI & R Annual	7	90
71152S	S	PI & R Semi Annual	2	20
71153	A	Follow up of Events and Notices of Enforcement Discretion	As required	55
New	A	Engineering IP	TBD	175

Engineering and PI&R Inspection Changes

Engineering Inspections, Shift to Annual Cycle

- **1 two-week** Engineering inspection per year**,** with the inspection having on average **2.5 inspectors**
- Samples will be flexible based on licensee current performance
- Allows for detailed inspection of high-risk components if necessary
- **Overall reduction is 37%** (280 hrs/yr to 175 hrs/yr)

PI&R Inspections, Move IP 71152B to Appendix C

- Increase in annual follow-up samples:
  - Requirement to follow-up on open Corrective Action Program Records
- Option to sample in the areas of licensee audits and self-assessments, licensee use of operating experience, and safety conscious work environment
- Overall assessment of program using team inspection inputs
- Development of objective criteria for implementation of team inspection
- **Overall reduction is 45%** (219 hrs/yr to 120 hrs/yr)

Elements of New Engineering Inspection Procedure

- The 5 engineering IPs will be consolidated into one newly developed IP
- Small number of detailed inspection samples and/or larger number of more streamlined samples
- Specific inspection guidance will depend on the specific sample and will utilize previous engineering IPs (i.e. POV, EQ, CGD, etc)
- Inspection can be completed in two consecutive weeks or spread out over some time period depending on the samples selected
- A resident inspector will be part of the inspection effort

Elements of PI&R Inspection Procedure

- The PI&R IP will be split into two IPs
  - The first IP will remain in IMC 2515 App A
  - The second IP (PI&R Team Inspection) will transition to IMC 2515 App C (Special and Infrequently Performed Procedures)
  - Minimum Annual Samples will be increased from 4 to 7 with a resource increase from 64 to 90 hours.
  - Current sections in the PI&R Team Inspection will be moved to optional Annual Samples:
    - Focused inspection: Licensee Audits and Self-Assessments
    - Focused inspection: Licensee use of Operating Experience
    - Focused inspection: Review issues that pose challenges to the free flow of information for adequate resolution.

- Proposed Entry Criteria (To be discussed later in this meeting)

Elements of PI&R Inspection Procedure

- Two-member team, onsite for one week (Flexibility on inspection resources used)
  - Fully qualified inspectors with option to include inspectors with specialized expertise (e.g., qualified safety culture assessor, regional inspectors)
  - Scope of inspection is flexible with options to focus on problem areas
  - Charter will specify what aspects of the inspection will be performed

Sample Requirements		Minimum Baseline Completion Sample Requirements		Budgeted Range	
Sample Type	Section	Frequency*	Sample Size	Samples	Hours
Focus area: CAP Effectiveness	XX.XX	As required	1	1	60-80
Focus area: Licensee Audits and Self-Assessments					
Focus area: Licensee use of operating experience					
Focus area: Safety Conscious Work Environment					

NSIR Security IPs Maintained/Sunset

Current Procedure No	Frequency	Title	Nominal Samples	Nominal Hours
71130.01	T	Access Authorization	1	25
71130.02	A	Access Control	1	28
71130.03	T	Contingency Response – Force-on-Force Testing	1	393
71130.04	B	Equipment Performance, Testing, & Maintenance	1	37
71130.05	T	Protective Strategy Evaluation and Performance Evaluation Program	2	89
71130.07	B	Security Training	1	27
71130.08	T	Fitness-For-Duty Program	1	24
71130.09	A	Security Plan Changes	1	7
71130.10	B	Cybersecurity	1	70
71130.11	T	Material Control and Accounting	1	16
71130.14	T	Review of Power Reactor Target Sets	1	10

New/Updated Procedure No	Frequency	Title	Min Samples	Min Hours
71130.03	T	Contingency Response – Force-on-Force Testing	1	180*
71130.10	T	Cybersecurity	3	70
71130.15	A	Security Operational Performance	5	24
71130.16	T	Security Equipment Performance and Security Training	5	50
71130.17	T	Design and Implementation of the Protective Strategy	4	80
71130.18	T	Access Authorization and Fitness for Duty	4	35

Elements of New/Updated Security Inspection Procedures

- Revise IPs to refocus from verifications of compliance with individual regulatory requirements to verifications of licensee performance and compliance with the general performance objectives of 10 CFR 73.55.
- All security inspections will be triennial, except for Security Operational Performance which will be annual.
- Resident inspectors will be utilized as limited inspection team members to complete inspection requirements that do not require significant additional training. Examples include:
  - Review of licensee Target Sets and exercise observation during the protective strategy inspection.
  - Verification of testing and maintenance of licensee security power supplies during the security equipment inspection.
- Cybersecurity will remain within the security suite of inspections but will continue to be performed by regional engineering or resident inspection staff.
- Revisions to the FOF inspection program scenario development process will be contained in a later SECY to the Commission.

NSIR Emergency Preparedness IPs Maintained/Sunset

Current Procedure No	Frequency	Title	Nominal Samples	Nominal Hours
71114.01	B	Exercise Evaluation	1	64
71114.02	B	Alert and Notification System Testing	1	4
71114.03	B	Emergency Response Organizational Staffing/Augmentation	1	8
71114.04	A	Emergency Act Level & Emergency Plan Changes	1	16
71114.05	B	Maintenance of EP	1	12
71114.06	A	Drill Evaluation	3	14
71114.07	B	Exercise Evaluation – Hostile Action (HA) Event	1	64
71114.08	B	Exercise Evaluation - Scenario Review	1	14

Updated Procedure No	Frequency	Title	Min Samples	Min Hours
71114.01	B	Exercise Evaluation	1	40
71114.02	B	Alert and Notification System Evaluation	1	2
71114.03	B	Emergency Response Organization Staffing and Augmentation System	1	2
71114.04	B	Emergency Action Level and Emergency Plan Changes	1	6
71114.05	B	Maintenance of Emergency Preparedness	1	8
71114.06	B	NRC Resident – Evaluation of Emergency Preparedness Program	3	5
71114.07	B	Exercise Evaluation – Scenario Review	1	10

Elements of New/Updated Emergency Preparedness Procedures

- IP 71114.06 (NRC Resident EP evaluations)
  - Added more sample options, this has been a recurring issue.
  - Frequency change from annual to biennial and scheduled for the off-year, i.e., the year between EP exercises.
- IP 71114.02, 71114.03, 71114.04, 71114.05
  - Schedule for the off-year, i.e., the year between EP exercises.
  - All changed to be done remotely, i.e., no travel needed (note that 71114.08 is already remote).
- IP 71114.04
  - Frequency change from annual to biennial and scheduled for the off-year, i.e., the year between EP exercises.
- PI&R
  - Remove EP from PI&R as this is being done already during the EP baseline inspections and is redundant.
- EP SDP
  - Revise to focus GTG inspection findings on only those planning standards with direct public impact.
  - Revise to enhance the section on dose assessment/radiation instrument issues based on experience and feedback.
- Everything but the exercise, could be done remotely.

NRR/DRA Radiation Protection IPs Maintained/Sunset

Current Procedure No	Frequency	Title	Nominal Samples	Nominal Hours
71124.01	A	Rad Haz Assess Exposure Controls	12	42
71124.03	B	Airborne Radioactivity	4	16
71124.04	B	Occupational Dose Assessment	6	20
71124.05	B	Radiation Monitoring Instrumentation	23	38
71124.06	T	Radioactive Gaseous and Liquid Effluent Treatment	1	29
71124.07	T	Radiological Environmental Monitoring Program	1	16
71124.08	B	Radioactive Solid Waste Processing & Radioactive Material Handling, Storage, & Transportation	11	34

New Procedure No	Frequency	Title	Min Samples	Min Hours
71125.01	Refuel Outage	Radiation Safety Refueling Outage	TBD	38
71125.02	T	Radiation Protection – Remote Inspection	TBD	32
71125.03	T	Occupational Radiation Safety Onsite Inspection	TBD	32
71125.04	T	Public Radiation Safety Onsite Inspection	TBD	32

Elements of New Radiation Protection Procedures

- Priorities
  - Revise IPs to better risk-inform program and maintain program alignment with the overall ROP
  - Incentivize adequate licensee response activities through the application of select low-level data
  - Reduce overall regulatory burden on licensees
- Replace existing 7 procedures with 4 (Outage Procedure , 2x On-site procedures and 1x Remote)
- Triennial cycle (frequency will be similar to IP 71111.20)
- Remote Inspection – opportunity to continue to meet import inspection objectives with less burden
- Outage procedure
  - Highest radiological risk period at plant
  - Best period to conduct risk-informed, performance-based inspection of RP program in action
- Some inspection requirements can be modulated based on licensee performance as determined by data/information sets defined in the IP. IPs will provide Region with decisionmaking tools to ensure consistent outcome in evaluating and applying “low-level data”

Nuclear Energy Institute Letter Input

July 31, 2025 Letter "Accelerating NRC Reform" (ML25212A197)

- Immediately approve SECY-25-0045 and in the interim, recommendations that do not require Commission approval should be implemented immediately.
- Immediately approve SECY-24-0009, "Proposed Revisions to the US NRC Enforcement Policy."
- Simplify and risk-inform PIs to focus on safety-significant performance gaps.
- Streamline the SDP to eliminate the use of NRC's SPAR models and utilize the utility PRAs.
- Eliminate greater-than-green findings for deterministic or qualitative thresholds (EP, security, RP).
- Risk-inform the SDP screening guidance.
  - Revise the screening guidance in IMC 0609, Appendix A to provide credit for plants that have adopted TSTF-505 and implemented risk-informed completion times (RICTs).
  - Reduce resources for completing detailed risk assessments when an AOT is extended utilizing an improved NRC process and risk management actions are implemented.
  - Revise Appendix A, C, I and M to institute off-ramps and remove the requirement to use deterministic criteria.
- Credit licensee action for responding to Licensee-Identified and Self-Revealing findings for oversight.
- Deterministic criteria should be risk-informed and consider defense-in-depth for findings/violations.
- Require the staff to use the Very Low Safety Significance Issue Resolution (VLSSIR) process, when applicable.
- Limit the time spent on low safety-significant issues and streamline documentation of the issues.
- Overhaul and risk-inform the Traditional Enforcement guidance and implement a VLSSIR-like process for Traditional Enforcement.

* Items marked with an asterisk and highlighted were considered in this ROP Baseline Inspection Program Revision

Nuclear Energy Institute Letter Input

July 31, 2025 Letter "Accelerating NRC Reform" (ML25212A197)

- Revise more than minor guidance in IMC 0612 to remove the "potential result or outcome" subjective criteria when determining if a violation is minor or more than minor.
- Eliminate White Findings and the 95001 process and simplify the 95002 and 95003 program.
- Eliminate the subjective deterministic criteria for reactive inspections and utilize a risk-informed approach.
- Sunset the current inspection report model and replace it with a more modern, efficient and transparent system that incorporates:
  - Real-time digital tracking of inspection findings
  - Quarterly summary reports for public stakeholders
  - Graded approach to documentation based on safety significance
  - Simplified documentation approach with standard templates for low safety significance issues
  - Eliminate or streamline reporting for issues of green or minor significance and rely on the licensee's corrective action program
- Eliminate inspection finding cross-cutting attributes (CCA) from the ROP.
- Develop a risk-informed approach for grading the level of oversight for advanced reactors with demonstrated lower risk profiles to: (1) prioritize continuous self-reporting performance indicator evaluation and threshold analysis and periodic inspection, and (2) replace resident inspector mode with periodic inspectors conducting reduced baseline inspections.
  - Ensure the SDP is realistic.
- Finalize Advanced Reactor Construction Oversight Program (ARCOP) guidance.

Nuclear Energy Institute Letter Input

July 31, 2025 Letter "Accelerating NRC Reform" (ML25212A197)

- *Streamline the inspection program using risk insights and incorporate performance-based principles. Eliminate low value inspection procedures and credit inspections and discontinue duplicative inspection. Problem Identification & Resolution Inspection (IP 71152)
  - Outage based inspections – Inservice Inspection and Radiation Protection Inspections.
  - Security program inspections – five of the existing security inspection procedures (e.g., Access Authorization, Access Controls, Security Plan Changes, Security Equipment, etc.).
- *Reduce low value inspections performed by resident inspector and eliminate minimum sampling process, which will enable the elimination of regional inspectors.
- *Revise IMC 2515, "Light Water Reactor Inspection Program Operations Phase," (including Appendix D), to eliminate low value inspections and minimum sampling process using risk and performance-based insights.
- *Eliminate inspections with historical performance of no or limited violations of very low safety significance – 70% of the 49 baseline inspection procedures have seen historical good performance with limited violations.
- *Consolidate eight physical security inspections into a single inspection program and transition the majority of inspections to resident inspectors.
- *Consolidate team and program inspections to focus on risk-informed aspects and use performance-based criteria to extend inspection cycles.
  - Extend Program Inspection cycle to 4 years – Cyber Security, Radiation Protection, Emergency Planning and Security Force-on-Force
  - Combine Security and Emergency Planning evaluated exercise and program inspection procedures

Nuclear Energy Institute Letter Input

July 31, 2025 Letter "Accelerating NRC Reform" (ML25212A197)

- *Eliminate low risk and low safety inspections, documentation and administrative process to allow resident inspectors to perform risk-informed and performance-based inspections.
- *Eliminate NRC preparation and documentation process for very low safety significance items.
- *Eliminate and streamline inspection programs:
  - *Revamp inspection program to be risk-informed and performance-based, focused on items of safety significance
  - *Consolidate and eliminate 49 baseline inspection procedures by 70%.
  - *Eliminate team engineering and program inspections (e.g., CETI, FEI and PI&R)
  - *Consolidate and reduce security-related inspections and transition inspections to resident inspectors
- NRC should adopt a graded and risk-informed approach in establishing an advanced reactor oversight program so that inspection hours and the need for a resident inspector is a function of the safety profile and performance of a plant.

Possible Overall Impact

Procedure Series	Current Program Annualized Hours	Proposed Program Annualized Hours	% Change Resource Usage
Reactor Safety Procedures (IP 71111 Series)	1143	800	-30%
Emergency Preparedness Procedures (IP 71114 Series)	81	73	-10%
Radiation Protection Procedures (IP 71124 Series)	111	82	-26%
Security Procedures (IP 71130 Series)	287	152	-47%
PI Review, PI&R, Event Follow-Up	327	175	-46%
TOTAL	1949	1282	-34%

Timeline

Date	Milestone
Sept 18	ROP Bimonthly **Public Meeting**
September thru December	Development, Regional Review, and Issuance of Revised Inspection Manual Chapters (IMCs) and Inspection Procedures (IPs)
Oct 4	SECY to OEDO
Oct 15	SECY to the Commission
December	Inspector training at December Inspector Counterpart Meetings
Jan 1, 2026	Issued Revised IPs for the Baseline Inspection Program go into effect (pending Commission approval of Revised ROP)

New PI&R Team Inspection Procedure

Heather Jones, Chief
Reactor Inspection Branch (IRIB)

New PI&R Team Inspection Procedure

- Entry Criteria to perform PI&R team inspection, as approved by the Regional Administrator
  (1) Findings:
    - Two or more Greater-than-Green (GTG) findings with a PI&R cross-cutting area are issued in a 12-month period, or
    - Greater than X (this number is currently TBD) cumulative findings with a PI&R cross-cutting area assigned in any 12-month period

  (2) Cross-Cutting:
    - Cross-cutting theme assigned in PI&R or SCWE (first occurrence) that the regional office has concerns about the adequacy of the licensee corrective actions. (See Note 1)

  (3) Supplemental Inspections:
    - Supplemental inspection identifies and documents a significant weakness in the PI&R program which the licensee did not identify, or
    - Results of a supplemental inspection or IMC 0350 document a SCWE concern. (See Note 1)

Notes:

1) The team inspection will be applicable to Columns 1, 2 & 3 of the Action Matrix. The team inspection is not recommended in Column 4 of the Action Matrix (Due to duplication in inspection effort for an IP 95003 Supplemental Inspection.

2) In addition, there will be two IMC 2515 App C inspections for SCWE: IP 93100 and this new PI&R team inspection. Only one of these inspections should be conducted for a SCWE issue. The regional administrator should choose the inspection that is most applicable.

3) A charter will be approved by the Regional Administrator that informs the inspection team what aspects of the new PI&R team inspection they will be inspecting.

Questions and Discussion on the Revision to the ROP Baseline Inspection Program

More-than-Minor Screening Criteria

Alex Garmoe
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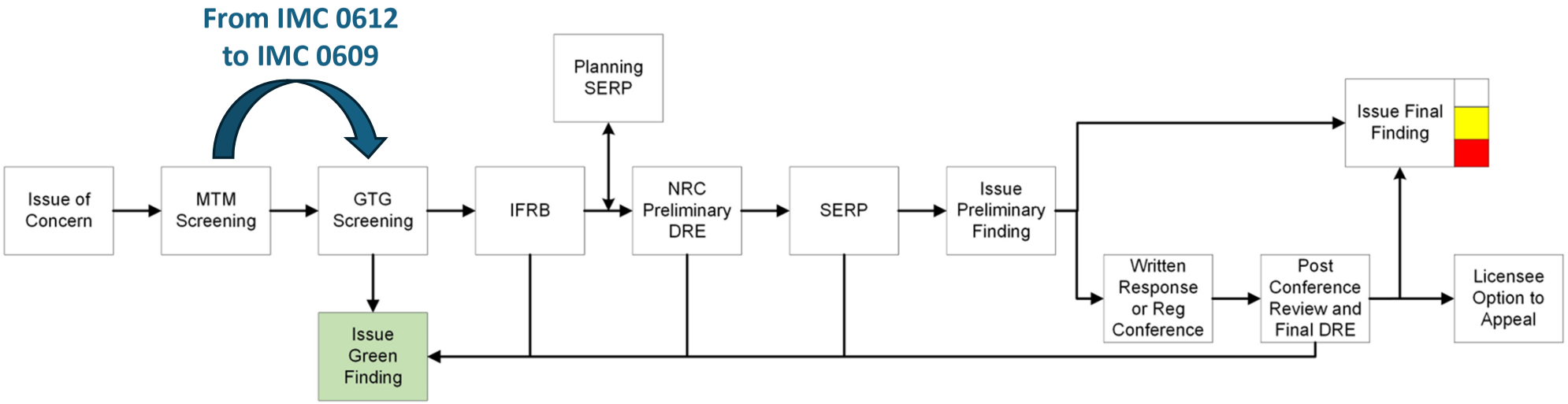
More-than-Minor Screening Criteria

- ADVANCE ACT Section 507 prompted review of issue screening process
  - “ensure NRC’s regulatory oversight is risk-informed and performance-based”
- Prior issue screening updates implemented earlier this year
  - Expanded applicability of VLSSIR
  - Elimination of dual-path TE-ROP screening option for Green issues
- More-Than-Minor decision-making consistency and efficiency has long been a focus area
  - Questions/criteria involve subjectivity
  - Roughly 100 examples in IMC 0612 Appendix E

More-than-Minor Screening Criteria

- Next step in ADVANCE Act Section 507-driven changes to issue screening is improving the MTM determination
  - Address the subjectivity in current criteria
  - Reduce the level of effort required to make the determination
  - Enhance consistent and predictable outcomes
- These can be achieved by relocating MTM to IMC 0609
  - Already a familiar tool that is part of issue screening process
  - Largely more objective than the existing MTM questions/criteria
  - Add a layer of inquiry to determine whether issue is Green or Minor
  - IMC 0612 Appendix E examples would be eliminated
- Review and revision of IMC 0612 and 0609 documents is underway

More-than-Minor Screening Criteria



More-than-Minor Screening Criteria

- Example revisions to IMC 0609 Appendix A, subject to change as work contonues

A. Loss of Coolant Accident (LOCA) Initiators

1. After a reasonable assessment of degradation, could the finding result in exceeding the reactor coolant system (RCS) leak rate for a small LOCA (leakage in excess of normal makeup)?

   ☐ a. If YES → Stop. Go to Detailed Risk Evaluation section.

   ☐ b. If NO, continue.

2. After a reasonable assessment of degradation, could the finding have likely affected other systems used to mitigate a LOCA (e.g., Interfacing System LOCA)?

   ☐ a. If YES → Stop. Go to Detailed Risk Evaluation section.

   ☐ b. If NO, ~~screen as Green~~continue.

3. Did the performance deficiency result in exceeding Technical Specification RCS leakage?

   ☐ a. If YES, screen as Green

   ☐ b. If NO, screen as minor

B. Transient Initiators

1. Did the finding cause a reactor trip AND the loss of mitigation equipment relied upon to transition the plant from the onset of the trip to a stable shutdown condition (e.g., loss of condenser, loss of feedwater)? Other events include high-energy line breaks, internal flooding, and fire.

   ☐ a. If YES → Stop. Go to Detailed Risk Evaluation section.

   ☐ b. If NO, ~~screen as Green~~continue.

2. Did the performance deficiency cause a reactor trip or a plant transient greater than 10% reactor power without the loss of mitigating equipment or support systems?

   ☐ a. If YES, screen as Green.

   ☐ b. If NO, screen as minor.

Questions and Discussion on the Revision to the More-than-Minor Issue Screening Guidance