

CHRONOLOGY OF SIGNIFICANT EVENTS IN OPERATOR LICENSING SINCE THREE MILE ISLAND
(TMI - 1979)

Date (MM/YYYY)	Event
04/1979	Accident at TMI-2.
03/1980	Harold Denton letter immediately upgrades training and qualifications for reactor operators (ROs) and senior reactor operators (SROs) (e.g., experience, three months on shift), scope of United States Nuclear Regulatory Commission (NRC) licensing examinations (e.g., new written categories on heat transfer and fluid flow (HTFF) and thermodynamics, passing grade raised to 80% overall), and requalification programs (e.g., include HTFF, thermodynamics, and mitigating core damage; raise passing grade to 80%; control manipulations).
11/1980	NUREG-0737 incorporated the Denton letter requirements. Pending accreditation of training institutions, licensees will certify (at the SRO level) instructors who teach systems, integrated response, transient and simulator courses and enroll them in requalification programs. The scope of the licensing examinations after September 1981 will include simulator exams.
12/1982	Section 306 of the Nuclear Waste Policy Act (NYPA) directs the NRC to promulgate regulations or other appropriate guidance for the training and qualifications of nuclear power plant operators (and other personnel) and to establish simulator training requirements for applicants for operator licenses and for operator requalification programs, requirements governing NRC administration of requalification examinations, requirements for operating tests at civilian nuclear power plant simulators, and instructional requirements for licensee personnel training programs.
12/1982	Regions II and III assumed responsibility and authority for the issuance of operators' licenses in their respective regional areas.
07/1983	Region I assumed responsibility and authority for the issuance of operators' licenses in their respective regional area.
10/1983	Regions IV and V assumed responsibility and authority for the issuance of operators' licenses in their respective regional areas.
02/1984	SECY-84-76 forwards proposed rulemaking (and four Regulatory Guides: 1.8, 1.149, 1.134, and a new guide on the application of the systems approach to qualifications and training at nuclear power plants) for operator licensing and training and qualification of civilian nuclear power plant personnel to the Commission for approval. Action on the rulemaking was postponed at the Nuclear Management and Resources Council's (NUMARC's) request until the industry could develop and present an alternative training and qualifications position based on industry and Institute of Nuclear Power Operations (INPO) initiatives. NUMARC endorsed the aspects of SECY-84-76 related to operator licensing (i.e., Part 55, RG 1.149 and 1.134 and parts of 1.8).
06/1984	SECY-84-76A provided the Commission with an alternative to the training and qualifications-related portions of SECY-84-76 in response to the NUMARC proposal.

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09/1984	SECY-84-76B provided the Commission with additional alternatives to the training rule in 84-76A.
10/1984	The Commission directed the staff to write a policy statement which authorizes the industry (INPO and NUMARC) to go forward for 2 years with its initiatives on training and accreditation programs (and fitness-for-duty (FFD)). It also directed the staff to publish proposed changes to Part 55 as contained in SECY-84-76A and to make appropriate changes in RG 1.8; no changes were required in RGs 1.149 or 1.134.
02/1985	The Commission approved the policy statement on training and qualification of nuclear power plant personnel that was proposed in SECY-85-001.
04/1986	SECY-86-123 requested Commission approval to publish the final rulemaking for operator licensing and two associated RGs.
09/1986	NUREG-1021, Revision 3, is issued.
10/1986	The Commission gave tentative approval to the final rule on operator licensing subject to nine modifications attached and directed the staff to return the package for final approval and affirmation. The Commission also informed the staff that it was considering the addition of a requirement to pass an NRC-administered requalification examination prior to license renewal.
11/1986	SECY-86-348 forwarded the final rulemaking, with the changes directed by the staff requirements memorandum (SRM), back to the Commission for affirmation.
01/1987	The Executive Director for Operations (EDO) proposed three options for Commission consideration regarding the earlier proposal to require an NRC administered exam prior to license renewal.
02/1987	The Commission approved publication of the final rule and three associated RGs. The Commission also approved a modified version of EDO Option A to require the NRC to examine all licensed operators on a random basis so that no operator will go longer than 6 years between NRC exams once the initial license is issued.

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05/1987	<p>The amendment that made Part 55 conform with Section 306 of the NWPB became effective. Major changes included:</p> <ul style="list-style-type: none"> • NRC review and approval of requalification programs • Passing an NRC requalification examination as a condition for license renewal • Extension of the license term from 2 to 6 years • The requirement for operating tests to be administered on a certified or approved simulation facility. The scope of the operating test was expanded to include team skills • A simplified application process for applicants who have completed a Commission-approved (i.e., INPO accredited), SAT-based training program that uses a certified or approved simulation facility • A simplified medical certification process for all but conditional license applications • The addition of proficiency watches as a license condition • The elimination of the SRO instructor certification <p>NUREG-1021, Revision 4, was issued. The comprehensive requalification written exams were essentially 60% of an initial licensing examination and the operating tests were also similar in scope and format to the initial version. The NRC would randomly select about 20% of the operators each year to receive written, walk-through and simulator examinations.</p>
09/1987	<p>The staff held a public meeting with industry representatives at NUMARC's request to discuss concerns related to the conduct of NRC requalification examinations. First, the stress on individual operators was heightened because their licenses were now at risk, and, second, the facilities had to provide impromptu training to the operators selected for the NRC exam because it did not reflect all of the industry's training objectives (the examinations had an over- emphasis on theory and memorization and were not operationally oriented). Highly experienced operators were resigning or transferring rather than take the required NRC exams. Because of the potential impact on plant safety, the staff suspended all NRC requalification examinations until it could evaluate the concerns and change the program.</p>
12/1987	<p>The first requalification exam using the revised approach developed by an Office of Nuclear Reactor Regulation (NRR)/regional task force was conducted at H.B. Robinson. The NRC examinations incorporated simulator individual simulator critical tasks (ISCTs), job performance measures (JPMs) and a static written examination for the first time. Additional pilot examinations were conducted in each of the other regions through July 07, 1988 in an effort to refine the process for evaluating operator performance for license renewal and the facility licensees' requalification programs. The staff worked closely with NUMARC during the development process and participated in industry workshops during the summer of 1988.</p>
05/1988	<p>The Commission requested an option paper on alternatives to further improve the NRC's requalification examination program and a status briefing after the pilot examinations were complete.</p>
06/1988	<p>The Chairman requested quarterly status reports on the new requalification program.</p>
09/1988	<p>The staff administered the first pilot generic fundamentals examination (GFE) to volunteers at boiling water reactors. A second pilot exam was administered to operators at boiling water reactors (BWRs) and pressurized water reactors (PWRs) in June 1989.</p>

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10/1988	<p>The staff briefed the Commission on the results of the pilot requalification examinations and lessons learned. Concerns arise regarding the resources necessary to implement the program. NUREG-1021, Revision 5, was issued and became effective on January 1, 1989. The revised NRC requalification examination program was implemented on a full-scale basis. 80% of the examination is from the facility sample plan. The NRC has the latitude to develop up to 20% of test items from outside the sample plan. To pass the examinations, an individual must:</p> <ul style="list-style-type: none"> • correctly perform all ISCTs on the simulator exam • pass 8 of 10 JPMs and 70% of JPM questions • score 80% on both static and open reference written exams
12/1988	Proposed rule is published requiring SROs to hold a bachelor's degree in engineering.
02/1989	SECY-89-55 discusses four alternatives (A, stick with the pilot process; B, use a modified, 2-on-1 walk-through; C, allow INPO to conduct the exams with NRC oversight; D, use an independent agency to conduct the exams with NRC oversight) for the conduct of NRC requalification examinations.
03/1989	The Commission directed the staff to prepare a Notice of Proposed Rulemaking to amend Part 55 to make FFD a condition of the operator's license and Part 2 to incorporate appropriate enforcement sanctions.
05/1989	The Commission approves Alternative B (2-on-1 walk-through exams; each operator performs 5 JPMs and responds to questions on 5 others) as a method of reducing the resource requirements for conducting requalification examinations at facilities that were previously evaluated as satisfactory by the NRC.
08/1989	Proposed SRO degree rule is withdrawn and policy statement on education of senior operators and shift supervisors is published.
10/1989	The GFE program was formally implemented by Generic Letter 89-17.
03/1990	The Commission approved the proposed FFD amendment to Parts 2 and 55 for publication.
05/1990	The Office of the Inspector General (OIG) issued its final report on an operator licensing program review. OIG had two major concerns involving the use of contract examiners to perform an inherent governmental function and the appearance that the staff was using personal services contracts to avoid personnel ceilings.
06/1990	NUREG-1021, Revision 6, was published for implementation on October 1, 1991. It incorporated the JPM methodology in the initial examination program and required prescribing and approval of the operating test to address OIG contractor concerns. Alternative "B" was implemented for satisfactory facilities' second round of NRC requalification examinations.
10/1990	Non-power reactor operator licensing program recentralized at the NRR Operator Licensing Branch (HOLB).

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02/1991	SECY-91-34 proposed that the NRC pilot test a revised requalification simulator test grading method that would encourage teamwork, communications, and command and control. The revised method would eliminate the use of ISCTs as individual grading criteria and focus on crew performance.
02/1991	In response to an OIG recommendation, the EDO petitioned the Comptroller General of the United States for a decision as to whether the NRC's contracts for operator licensing were permissible under federal contract regulations (i.e., Were contractors performing an inherent governmental function and were they personal services contracts?)
03/1991	The Commission directed the staff to continue providing semi-annual reports on the status of the requalification program until the staff is satisfied with the stability of the program.
06/1991	The Commission approved the final rulemaking to amend Parts 2 and 55 requiring operators to comply with FFD programs as a license condition. The rule became effective on August 14, 1991.
07/1991	The first pilot crew-based requalification examination was conducted at Oconee. Five additional examinations were conducted through December 1991.
08/1991	The Comptroller General concluded: (1) that the Commission's examination guidelines (per NUREG-1021, Revision 6) were so comprehensive and detailed that the contract employees exercise minimal discretionary authority and make limited value judgements in preparing recommendations for Commission employees who decide whether to grant operator licenses, and (2) that the use of contractors did not involve the improper use of personal services contracts because the contract employees are not subject to continuous supervision and control by employees of the Commission.
11/1991	The Commission, in response to concerns regarding examination consistency, directed the staff to study the advantages and disadvantages of recentralizing the operator licensing function.
12/1991	The Human Factors Branch completed its study of requalification examination stress and reported the results to the Commission in SECY-91-391. It identified the frequency of changes in the requalification examination program, inconsistencies among examiners in interpreting the Examiner Standards, and the ISCT grading methodology as the major sources of undue stress and identified six actions that the staff planned to take to mitigate that stress.
01/1992	Commissioner Curtiss recommended that the staff submit a single annual report on the results of initial and requalification examinations.
03/1992	SECY-92-100 requested Commission approval to implement the revised dynamic simulator requalification test grading procedure that would shift the focus from the individual operator to the operating crew and informed the Commission of the staff's intent to amend Part 55 to eliminate the requirement for every operator to pass an NRC requalification examination as a condition for license renewal.

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06/1992	The Commission approved the implementation of the crew-based dynamic simulator grading method for requalification examinations (at the facility licensee's option until the Examiner Standards are revised) and provided staff direction on the proposed rulemaking and inspection guidance.
12/1992	The staff issued TI 2515/17, "Licensed Operator Requalification Program Evaluation," for Regional use in conducting pilot requalification program inspections at Salem, Hope Creek, Nine Mile 1, Turkey Point, Brunswick, LaSalle, Callaway, South Texas, and Diablo Canyon.
02/1993	NUREG-1021, Revision 7, issued for implementation in August 1993. It incorporated the crew critical task grading method for simulator evaluations; individual operating evaluations are the responsibility of the facility licensee. The walk-through was reduced to 5 JPMs with no prescribed follow-up questions, and the written exam was reduced to one static scenario plus the section on administrative controls/procedural limits.
04/1993	The Commission approves the proposed rulemaking (SECY-92-430) that would eliminate the requirement for every operator to pass an NRC-administered requalification examination as a condition for license renewal. It rejected the staff's proposal to continue periodic requalification examinations.
11/1993	SECY-93-309 reports the results of the recentralization study to the Commission. It determined that inconsistency was primarily the result of individual differences between examiners and not a function of the organizational structure. Although it concluded that the examinations were valid, but it recommended four areas (examiner training, communications and interaction, regional oversight, and guidance on level of difficulty) and in which the staff could take action to improve consistency. The Commission directed the staff to update the status of actions in the annual report.
12/1993	SECY-93-333 requests Commission approval of the final rule deleting the requirement for every licensed operator to pass an NRC-conducted requalification exam as a condition for license renewal. The Commission approved the rulemaking on 1/19/1994 and the rule became effective on March 11, 1994.
03/1994	IP 71001, "Licensed Operator Requalification Program Evaluation," issued as part of the core inspection program.
06/1994	NUREG-1021, Revision 7, Supplement 1, issued for implementation in 08/1994 to bring the Standards into conformance with the March 1994 rule change and to recognize the shift from requalification oversight by examination to oversight by inspection.
08/1994	Virginia Electric and Power Company (VEPCO) submitted a Cost Beneficial Licensing Action (CBLA) proposing to prepare the upcoming initial operator licensing examinations at its Surry and North Anna facilities.
11/1994	The NRC staff denied VEPCO's proposal based on the need to maintain uniform conditions for licensing operators and concerns related to independence and objectivity.

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03/1995	SECY-95-075 described the staff's intent to revise the operator licensing program to allow greater participation by facility licensees and to eliminate contractor assistance in the operator licensing area. The changes were part of the staff's continuing effort to streamline the functions of the Federal government and to accommodate anticipated resource reductions. The staff briefed the Commission on the proposal in a public meeting on May 25, 1995.
04/1995	The Commission did not object to the staff's proposal to initiate a transition process and directed the staff to carefully consider experience from pilot examinations.
06/1995	The Commission responded to the staff's briefing with an SRM that directed the staff to maintain an in-house capability to administer license examinations.
08/1995	Generic Letter (GL) 95-06 outlined the revised examination development process and solicited volunteers to participate in a 6-month pilot program (October 01, 1995 to April 05, 1996) to evaluate and refine the methodology.
11/1995	Revision 1 of NUREGs-1122 and 1123, the PWR and BWR K/A catalogs, published for use in conjunction with Revision 8 of NUREG-1021. The revision resolved inconsistencies between the two catalogs and inconsistencies in content within the K/A catalogs. The revision also incorporated evolutionary changes in the operator licensing program.
04/1996	Revision 2 of Regulatory Guide 1.149 issued endorsing, with exception, ANSI/ANS 3.5-1993, "Nuclear Power Plant Simulators for Use in Operator Training and Examination."
06/1996	SECY-96-123 summarized the results of the pilot program and requested Commission approval to implement the new examination process on a voluntary basis while pursuing a rule change that would require power reactor facility licensees to draft the operator licensing examinations in accordance with NUREG-1021.
07/1996	An SRM directed the staff to develop a detailed rulemaking plan and to address a number of issues related to the revised examination process (i.e., the potential impact on licensees; the degree of industry acceptance; the pros, cons, and vulnerabilities of industry-wide implementation; the examination results and trends; the industry comments on draft Revision 8 of NUREG-1021; and lessons learned from the pilot program).
09/1996	SECY-96-206 provided additional information regarding the pilot program results and requested Commission approval of a rulemaking plan to amend Part 55 to require power reactor facility licenses to prepare the operator licensing examinations.
12/1996	An SRM approved the rulemaking plan and the voluntary implementation of Interim Revision 8 of NUREG-1021 until the rulemaking was complete. The SRM also directed that the staff should draft at least one examination per region per calendar year to aid in maintaining proficiency, training new examiners, and checking quality.
01/1997	Interim Revision 8 of NUREG-1021 was published for use and comment in conjunction with a proposed rule that would require power reactor facility licensees to prepare the initial operator licensing examinations.

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01/1997	GL 95-06, Supplement 1, informed power reactor licensees of the results of the pilot program and the Commission's decision to implement the revised examination process on a voluntary basis pending completion of a rulemaking that would require power reactor facility licensees to participate in the examination development process.
04/1997	SECY-97-079 requested Commission approval to publish the proposed amendment to Part 55 that would require power reactor facility licensees to prepare the initial operator licensing examinations. The NRC would retain its authority to prepare the exams to maintain proficiency and in the event that it loses confidence in a facility licensee's ability to prepare acceptable examinations.
06/1997	An SRM approved publication of the proposed rule change for a 75-day comment period subject to a number of comments and changes: the FRN should discuss the safety benefit of the proposed rulemaking and the importance of ensuring examination security and integrity; the staff should provide additional legal analysis regarding the applicability of the back-fit rule; the FRN should specifically solicit comments regarding common aspects of the exam and the staff's conclusion that licensees could prepare the exams at lower cost; and the Congressional letters should be modified as directed.
08/1997	Information Notice 97-67, "Failure to Satisfy the Requirements for Significant Manipulation of the Controls for Power Reactor Operator Licensing," alerted addressees that operator license applicants are required to perform at least five significant control manipulations on the facility for which a license is sought.
03/1998	Revision 3 of Regulatory Guide 1.134 issued endorsing ANSI/ANS 3.4-1996, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants," with exceptions.
04/1998	Information Notice 98-15, "Integrity of Operator Licensing Examinations," advised addressees of several instances of potential compromise of the integrity of operator licensing examinations.
06/1998	Revision 2 of NUREGs-1122 and 1123, the PWR and BWR K/A catalogs, published to incorporate corrections to Revision 1 of the catalogs.
07/1998	Information Notice 98-28, "Development of Systematic Sample Plan for Operator Licensing Examinations," alerted addressees to concerns that NRC found while conducting its licensed operator examination program.
08/1998	The Committee to Review Generic Requirements (CRGR) questioned the staff's position that the back-fit rule did not apply to the proposed Part 55 rule change. Its June 10, 1998 meeting minutes recommended making the provisions of the rule voluntary, as the industry had suggested.
10/1998	Information Notice 98-37, "Eligibility of Operator License Applicants," issued to remind addressees that the eligibility requirements for applying for an operator license have not changed since 10 CFR Part 55 was amended in 1987.

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11/1998	SECY-98-266 requested Commission approval to publish a final amendment to Part 55 allowing, rather than requiring, power reactor facility licensees to prepare the initial operator licensing examinations and to publish a related revision to the enforcement policy.
02/1999	An SRM approved the final rule amending Part 55 and the publication of final Revision 8 of NUREG-1021, subject to removal of the restriction on instructors preparing exam questions on topics that they taught. The Commission directed the staff to continue monitoring the exam results, particularly with regard to level of difficulty. The proposed changes to the enforcement policy were not approved.
04/1999	The examination final rule was published in the Federal Register (64 FR 19868) and final Revision 8 of NUREG-1021 was issued.
09/1999	SECY-99-225 sought approval of plan to amend Part 55 to address industry concerns regarding simulator maintenance and their use for significant control manipulations. The SRM of October 05, 1999 raised no objections to the rulemaking plan.
10/1999	The NRC launched the Operator Licensing Web Site.
10/1999	The examination rule change and Revision 8 of NUREG-1021 became effective on October 20, 1999.
02/2000	NEI sponsored a national operator licensing workshop in Orlando, FL.
03/2000	Draft Supplement 1 to Revision 8 of NUREG-1021 was issued for comment and voluntary trial use. The major changes included clarifications regarding the systematic and random selection of topics and questions for the written examination, the limits on question usage, and the documentation of NRC staff concerns related to draft examination quality.
04/2000	SECY-00-083 requested approval to publish a proposed rule that would allow license applicants to fulfill a portion of the experience prerequisites by manipulating a plant-referenced simulator as an alternative to use of the actual plant. The proposed rule would also remove current requirements for certification of simulation facilities and routine submittal of simulator performance test reports to the NRC for review. An SRM approved the proposed rule (with clarifications to the Congressional letters) on May 15, 2000.
04/2000	The NRC officially implemented the revised reactor oversight process (ROP), which replaced IP-71001 with IP 71111-Attachment 11 for the conduct of licensed operator requalification inspections.
05/2000	Revision 3 of Regulatory Guide 1.8 was issued, endorsing, with additions, exception, and clarification, the 1993 version of ANSI/ANS 3.1, "American National Standard for Selection, Qualification, and Training of Personnel for Nuclear Power Plants."
06/2000	An addendum to Revision 8, Supplement 1, of NUREG-1021 was issued for comment and voluntary trial use. The addendum made changes to conform to Revision 3 of RG 1.8 and extended the comment period on the draft supplement to October 31, 2000.

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01/2001	The NRC issued Appendix I of IMC-0609, the Operator Requalification Human Performance Significance Determination Process (SDP), to complement IP 71111.11.
01/2001	Regulatory Issue Summary (RIS) 2001-01, "Eligibility of Operator License Applicants," reviewed and updated the status of this issue since Information Notice (IN) 98-37, "Eligibility of Operator License Applicants," was issued on October 1, 1998.
04/2001	Final Supplement 1 to Revision 8 of NUREG-1021 was published.
06/2001	Additional guidance clarifying the suppression or elimination of inappropriate K/A statements was published on the OL website.
07/2001	SECY-01-125 requested approval to publish the final rule that allows license applicants to fulfill a portion of the experience prerequisites by manipulating a plant-referenced simulator as an alternative to use of the actual plant. The rule also removed current requirements for certification of simulation facilities and routine submittal of simulator performance test reports to the NRC for review. An SRM approved the rule (with changes to the FRN, press release, and Congressional letters) on September 28, 2001, and the rule became effective on November 16, 2001.
10/2001	Revision 3 of Regulatory Guide 1.149 was issued, endorsing, with clarifications, the 1998 version of ANSI/ANS 3.5.
03/2002	Appendix I of IMC-0609, the Operator Requalification Human Performance Significance Determination Process (SDP), was revised to incorporate lessons learned from the IP-2 and Cooper enforcement issues.
06/2002	Additional guidance clarifying the conduct of peer checks was published on the OL website.
08/2002	IP 71111.11 was revised to implement the simulator rule change (10 CFR 55.46).
01/2003	Draft Revision 9 of NUREG-1021 was issued for comment and voluntary trial use through December 31, 2003. The major changes: (1) improve efficiency by reducing the length of the RO written examination; (2) clarify and simplify the design of the SRO written examination; (3) better risk-inform both written examinations; (4) better balance the administrative and systems portions of the walk-through operating test; (5) clarify the grading criteria for the simulator operating test; and (6) incorporate guidance regarding the suppression of inappropriate knowledge and ability (K/A) statements and the conduct of peer checks that was previously promulgated on the NRC's operator licensing web page.
02/2003	NEI sponsored a national operator licensing workshop in Tampa, FL.
06/2003	RIS 2003-10 was issued to clarify the NRC staff's expectations regarding the frequency of licensed operator requalification written examinations based on lessons learned from the Dresden case.

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12/2003	IP 71111.11, "Licensed Operator Requalification Program," was revised to promote exam integrity by inspecting excessive test item repetition among comprehensive requalification exams that are taken by crews undergoing the same training program cycle.
04/2004	NRC staff held a public meeting with the Industry Operator Licensing Focus Group (sponsored by NEI) to review the public comments and proposed changes to final Revision 9 of NUREG-1021.
07/2004	Final Revision 9 of NUREG-1021 published; the procedures become effective for all examinations given after February 18, 2005.
11/2004	Information Notice 2004-20, "Recent Issues Associated With NRC Medical Requirements for Licensed Operators," was issued to highlight concerns related to the conduct and documentation of medical examinations for applicants and holders of reactor operator and senior operator licenses.
02/2005	Revision 9 of NUREG-1021 became officially effective for all examinations given after February 18, 2005.
04/2005	NRC staff held a public meeting with the Industry Operator Licensing Focus Group, NEI, the INPO, and utility representatives to discuss a number of plant-referenced simulator fidelity and performance testing issues that had raised staff concerns regarding the potential for negative training.
05/2005	Errata corrections and clarifications were published for Revision 9 of NUREG-1021.
01/2006	NRC Form 396 revised to include a new license condition requiring operators to take their medications, as prescribed, when necessary to maintain medical qualifications.
02/2007	The Operator Licensing and Human Performance Branch (COLP) was established in the Office of New Reactors (NRO) to develop the rules, standards, plans, and policy in the areas of human performance, training, and operator licensing for new light water reactors.
05/2007	Draft supplements to NUREGs-1021 (Rev. 9), 1122 (Rev. 2), and 1123 (Rev. 2) published for public comment.
10/2007	Final Supplement 1 to Revision 9 of NUREG-1021 published; the procedures become effective for all examinations given after April 16, 2008. Supplement 1 to Revision 2 of NUREGs-1122 and 1123 were published for voluntary use; the procedures became effective for all examinations given after April 16, 2008. The notable changes (1) clarified licensed operator medical requirements, including the use of prescription medications; (2) clarified the use of surrogate operators during dynamic simulator scenarios; (3) clarified the selection process for generic knowledge and ability (K/A) statements; (4) qualified the NRC review of post-examination comments; (5) provided additional guidance for maintaining an active license (watchstander proficiency) and license reactivation; and (6) updated Section 2, "Generic Fundamentals," and added a new abnormal plant evolution (grid and voltage disturbances) to the K/A catalogs.

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04/2008	Supplement 1 to Revision 9 of NUREG-1021 became officially effective for all examinations given after April 16, 2008.
03/2011	An earthquake of magnitude 9.0, resulting in a large tsunami, leads to accident at Fukushima Daiichi (Japan) reactors.
12/2012	Pursuant to 10 CFR 2.103(b)(2), an SRO license candidate initiates a legal proceeding before the NRC's Atomic Safety and Licensing Board (ASLB) to contest the grading of the simulator portion of the operating test that resulted in the denial of the candidate's SRO license.
03/2014	The NRC's ASLB rules in favor of the SRO candidate and a SRO license is issued in June 2014.
05/2014	In response to ASLB ruling, the NRC established an Operator Licensing Lessons Learned Review Team (LLRT) lead by a senior executive out of Region I.
11/2014	The Operator Licensing LLRT recommends 23 changes to the Operator Licensing program. NRC then assembled an inter-office Operator Licensing Implementation Team (OLIT) to review the LLRT report and organize and resolve the recommendations. The OLIT recommendations accelerate the schedule to issue Revision 11 of NUREG-1021.
12/2014	Final Revision 10 of NUREG-1021 published. NUREG 1021, Revision 10, incorporated a new examination standard, ES-401N, to provide written examination preparation guidance applicable for new reactors. This was needed to provide examination outlines for the ABWR and AP-1000 reactor technologies based on the newly developed Knowledge and Abilities Catalogs (NUREG-2103 and -2104, respectively).
07/2015	Revision 10 of NUREG-1021 became officially effective for all examinations given after July 1, 2015.
02/2016	Draft Revision 11 of NUREG-1021 published for public comment. NEI sponsored a national operator licensing workshop in Tampa, FL.
02/2017	Final Revision 11 of NUREG-1021 published. NUREG 1021, Revision 11 clarified the waiver process for 10 CFR 55.47, the excusal process for 10 CFR 55.35(b), the appeal process; revised the post-examination comments submittal process, and simulator operating test grading criteria to improve objectivity.
05/2017	Revision 11 of NUREG-1021 became officially effective for all examinations given on or after August 15, 2017.
11/2018	INPO piloted changes to its accreditation process as part of its DaVinci initiative.

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06/2019	Revision 4 of Regulatory Guide 1.8, "Qualification and Training of Personnel for Nuclear Power Plants," is issued. Due to conflicts between different guidance documents, the staff removed the applicability of 10 CFR Part 55 from RG 1.8 so that NRC guidance for operator license qualifications will be located solely in NUREG-1021, which references the National Academy for Nuclear Training (NANT) qualification standards.
10/2019	An NRC reorganization resulted in the Office of New Reactors merging with the Office of Nuclear Reactor Regulation. As part of the reorganization, the Division of Inspection and Regional Support became the Division of Reactor Oversight, and the Operator Licensing and Training branch became the Operator Licensing and Human Factors branch.
03/2020	Novel Coronavirus COVID-19 pandemic results in a hiatus of examinations and a deferral of spirometry testing due to COVID-19 risk.
04/2020	INPO revised key accreditation documents that supported changes from the DaVinci initiative to the process for maintaining accreditation of training in the Nuclear Industry.
06/2020	Initial license operator examinations recommenced.
09/2020	Revision 3 of the PWR and BWR Knowledge and Ability Catalogs are published: NUREG-1122, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Pressurized Water Reactors" and NUREG-1123, "Knowledge and Abilities Catalog for Nuclear Power Plant Operators: Boiling Water Reactors."
12/2020	Draft Revision 12 of NUREG-1021 published for public comment.
03/2022	Revision 12 of NUREG-1021 effective for all examinations given on or after March 17, 2022. This eliminated the administration of the generic fundamentals examination (implemented 08/1989) by reincorporating a sample of fundamental questions into the Reactor Operator portion of the initial licensing written examination.
05/2022	NANT "Guidelines for Initial Training and Qualification of Licensed Operators," Revision 2, is effective. Since all current operating power reactors are accredited, the guidelines become the facility licensees' requirements to be licensed as an operator or senior operator, per 10 CFR 55.31(a)(4), in addition to any other facility licensee requirements.