

March 1, 2024

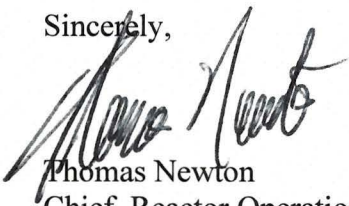
ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Sirs/Madams:

Subject: Docket Number 50-184 and the NBSR Requalification Plan

Changes has been made to the NBSR Requalification Plan in response to an NRC request for additional information (ADAMS accession No. ML22223A146). The changes were made in accordance with 10 CFR 55.59. Please find the attached requalification plan indicating the sections of the documents that were changed on March 1, 2024. These changes address and clarify the NBSR Requalification Plan and ensure accordance with all relevant sections of 10 CFR 55.59. If you have any questions concerning this submittal, please contact Mr. Randy Strader at 301-975-2380 or at rls7@nist.gov.

Sincerely,



Thomas Newton
Chief, Reactor Operations and Engineering
NIST Center for Neutron Research

I declare under penalty of perjury that the following is true and correct.

Executed on March 1, 2024

By:  _____

Enclosures

cc: U.S. Nuclear Regulatory Commission
ATTN: Patrick Boyle

U.S. Nuclear Regulatory Commission
ATTN: Amy Beasten

1.0 INTRODUCTION

The NBSR operator requalification program is designed to provide refresher training to the licensed operator in areas of infrequent operation, to review facility and procedural changes, to address subject matter not reinforced by direct use, and to improve in areas of performance weakness. The program is designed to evaluate an operator's knowledge and proficiency to perform their duties and to retrain where necessary. Emphasis is placed on those subjects necessary for the continued proficiency. Successful completion of the program is required for the operator to continue licensed activities. The program conforms to the applicable content of ANSI/ANS-15.4-2016, "Selection and Training of Personnel for Research Reactors" and ANSI/ANS-3.4-2013 "medical certification and monitoring of personnel requiring operator licenses for nuclear power plants" section 5.7.

2.0 DEFINITIONS

actively performing the functions of an operator or senior operator. An individual has a position on the shift crew that requires the individual to be licensed as defined in facility's technical specifications, and that the individual carries out and is responsible for the duties covered by that position.

controls. When used with respect to a nuclear reactor, means apparatus and mechanisms the manipulation of which directly affects the reactivity or power level of the reactor.

designated medical examiner. A licensed medical practitioner, either a Doctor of Medicine or a Doctor of Osteopathy, familiar with the medical provisions of this standard and the general responsibilities and work environment of the examinee.

disqualifying or disqualifying conditions. Something that precludes unconditional medical approval for research reactor operator licensing.

license. The written authorization, by the U.S. Nuclear Regulatory Commission (NRC), for an individual to carry out the duties and responsibilities associated with a position requiring licensing.

licensed. See licensee.

licensee. An individual or organization holding a license.

licensing. The confirmation by the NRC of the experience, education, medical condition, training, and testing pertinent to a specific job assignment.

nuclear experience. Experience acquired in reactor facility start-up activities or operation. Experience in design, construction, maintenance, or related technical services that are job related may also be considered. On-the-job training at the NBSR may qualify as equivalent experience on a one-for-one time basis. Appropriate research or teaching or both may be includable as nuclear experience.

on-the-job training. A systematic, structured method using a qualified person to provide the required job-related knowledge and skills to a trainee, usually in the actual workplace, with proficiency documented.

reactor operator. An individual who is licensed to manipulate the controls of a reactor.

reactor supervisor. An individual as described in the NBSR Technical Specifications and responsible for an operating crew or shift.

research reactor. A research reactor is defined as a device designed to support a self-sustaining neutron chain reaction for research, developmental, educational, training, or experimental purposes, and that may have provisions for the production of radioisotopes.

research reactor facility. Includes all areas within which the owner or operator directs authorized activities associated with the reactor.

senior reactor operator. An individual who is licensed to direct the activities of reactor operators. Such an individual is also a reactor operator.

shall, should, and may. The word “shall” is used to denote a requirement; the word “should” to denote a recommendation; and the word “may” to denote permission, neither a requirement nor a recommendation.

significant power change. A tenfold increase in flux indication above critical or a change in thermal power of at least 1 MW.

solo operation. Operation of the controls, including monitoring of instrumentation, during reactor operation with no other person in the vicinity of the controls.

3.0 GENERAL

3.1 Administration. Responsibility for the administration of the requalification program rests with the Chief, Reactor Operations. The program shall be administered over a period not to exceed 24 months, followed by successive 24-month periods.

3.2 Description. During the 24-month period, the following shall be provided or accomplished:

- (a) Refresher training
- (b) Written examination
- (c) Medical evaluation
- (d) Reactivity manipulations

For every 12-month period the licensed individual shall

- (a) Complete an operating test or evaluation
- (b) Review selected documents, including abnormal and emergency procedures

The operating test or evaluation and Document review shall be completed no later than the last day of the 12th month

3.2.1 Refresher Training. The requalification program includes preplanned lectures on a regular and continuing basis throughout the license period in those areas where operator and senior operator written examinations and facility operating experience indicate that emphasis in scope and depth of coverage is needed in the following subjects:

- (a) Theory and principles of operation.
- (b) General and specific plant operating characteristics.
- (c) Plant instrumentation and control systems.
- (d) Plant protection systems.
- (e) Engineered safety systems.
- (f) Normal, abnormal, and emergency operating procedures.
- (g) Radiation control and safety.
- (h) Technical specifications
- (i) Applicable portions of title 10, chapter 1, Code of Federal Regulations.

Additional training shall be provided in critical areas not routinely used by the operator such as emergency planning, response to abnormal conditions, selected topics in radiation protection and reactor operation principles, and changes to facility design and procedures.

3.2.2 Written Examination. Written examinations shall be operationally oriented, practical, and objective. . The number and form of questions shall be selected to best evaluate a particular examinee, but the number of questions successfully answered shall not preclude attainment of the minimum acceptance score specified in section 3.2.2.1. The exam should be of a multiple-choice type, composed of multiple categories, with 20 questions per category, and with four answers per question. The following categories should comprise the exam:

- (a) Theory. Topics include nuclear theory, principles of reactor operations, general and specific facility operating characteristics, and applicable thermodynamics.
- (b) Procedures and Radiological Controls. Topics include normal procedures, abnormal procedures, emergency procedures, radiation protection principles and procedures, administrative rules, and technical specifications.
- (c) Systems. Topics include plant systems, radiation protection systems, instrumentation and controls, and facility protection and engineered safety features.

3.2.2.1 Examination Administration and Evaluation. The minimum acceptance score shall be 70% for each category of the written examination. Individuals who did not achieve passing scores in one or more of the categories listed in section 3.2.2 may be re-examined following retraining in the deficient areas. The Chief, Reactor Operations may waive re-examination in categories with passing scores providing the candidate has demonstrated proficiency in those portions of an examination.

3.2.2.2 Evaluation and Retraining. Additional requalification training in the form of formal lectures, tutoring, self-study or on-the-job training shall be based on the results of the requalification examination. The following considerations should be used:

- (a) A score on the written examination equal to or greater than the acceptance criterion may require no additional training.
- (b) A score on the written examination below the acceptance criteria in section 3.2.2.1 shall require additional training in those topics where weakness or deficiencies are indicated. This retraining and retesting shall be completed prior to the candidate being relicensed.
- (c) An overall score on the written examination of less than 60% shall require that an evaluation by Chief, Reactor Operations or designated representative be performed. The evaluation shall determine if the deficiencies require that the individual's license be withdrawn pending completion of an accelerated retraining effort. The evaluation shall consider the individual's past performance record, supervisor's evaluation and past test scores, as well as current deficiencies. Additional oral or operational examinations may also be given to aid in the evaluation. In any case, the individual shall be removed from licensed activities within four months if the candidate cannot achieve passing scores after re-examination.
- (d) Regardless of the score, if the evaluation indicates a deficiency in a critical area that affects safety, training shall be administered to promptly correct the critical deficiency.

3.2.3 Medical Examination. Each licensed individual shall undergo medical examination and evaluation as part of the requalification program and shall meet the requirements of section 3.2.3.1. The primary responsibility for assuring that qualified personnel are on-duty rests with the Chief, Reactor Operations. The health requirements set forth herein shall be considered to determine the physical condition and general health of the individual to perform certain assigned duties as determined by the Chief, Reactor Operations. Each requirement should be considered in the context of the certain assigned duties of the individual as related to the consequences of health-induced operational errors endangering public health and safety. The designated medical examiner shall be conversant with the requirements.

Medical examinations shall be conducted every 2 years with the periodic examination completed no later than the last day of the 12th month of the second year. More frequent examinations may be required if conditions warrant as determined by the Chief, Reactor Operations or upon the recommendation of the

designated medical examiner. The physical condition and the general health of an operator shall be such that they are capable of properly carrying out licensed activities under normal, abnormal, and emergency conditions and able to perform the associated tasks. Conditions that can cause sudden incapacitation such as coronary heart disease, stroke, epilepsy, some mental disorders, diabetes, fainting spells, impaired hearing or vision, and effects of medication, shall be considered. Many of the conditions indicated above may be accommodated by restricting the activities of the individual, requiring close surveillance of the condition, imposing a medical regime, or requiring a second individual to be present when the individual in question is performing certain assigned duties. As a minimum, the second individual shall be able to shut down the reactor and summon competent help.

3.2.3.1 General Requirements

(a) Capacity. The examinee shall demonstrate stability and capacity for all the following:

- (1) Mental alertness and emotional stability.
- (2) Acuity of senses and ability of expression to allow accurate communications by spoken, written, or other audible, visible, or tactile signals.
- (3) Stamina, motor power, range of motion, and dexterity as needed to allow ready access to and safe execution of certain assigned duties.

(b) Freedom from incapacity. The examinee shall be free of any of the following conditions that are considered by the designated medical examiner and the Chief, Reactor Operations as predisposing to incapacity for duty:

(1) Mental health impairment requirement.

i. Minimum Requirements – from ANSI/ANS-3.4 5.7.1. “The operator shall be free from any mental condition that could cause sudden incapacitation, impaired alertness, impaired judgment, or impaired cognitive ability. The operator shall have the ability to function without mental impairment during routine operations and emergencies and in unusual environments such as, but not limited to, confined or crowded spaces, alone in darkness, at heights, on open grating, and on ladders.

This ability shall be determined by the clinical judgment of the examining physician and/or documentation provided by a treating medical provider and in consideration of any evaluation and prognosis by mental health professionals that the examining physician determines necessary.”

ii. Conditional Restrictions – from ANSI/ANS-3.4 5.7.3. “An individual who has a current diagnosis or history of mental disorders (listed in [ANSI/ANS-3.4] Table 3) may meet this standard’s medical requirements. When considering conditional restrictions, the examining physician shall review all available health history, examination findings, and medication and any impairment to the individual’s capacity to perform licensed duties. Evaluation and prognosis by mental health professionals should be considered.

NOTE: The use of a psychotropic drug shall be evaluated by the examining physician to determine potential conditional restrictions.

This includes all sedatives, tranquilizers, antipsychotic drugs, antidepressant drugs (including SSRIs [selective serotonin reuptake

Inhibitors]), analeptics, anxiolytics, and hallucinogens. The conditional restrictions other than shall take medication as prescribed may be removed, if stable, resolved, no associated disturbance of thought, and no recurrent episodes. When removing the conditional restriction

due to discontinuation of a psychotropic medication (or medications), a 3-month monitoring period shall occur prior to the examining physician removing the conditional restriction.”

iii. Examination methods – from ANSI/ANS-3.4 5.7.4. “Examination methods shall include an assessment of the individual’s emotional stability and mental alertness during the examination. Review of the individual’s medical history may alert the examiner to

gather further important information. Any disclosure of current or previous alcohol or drug problems and/or use of psychotropic drugs shall require further clarification including status and pertinent medical records. Side effects of the medications shall be considered.”

iv. Monitoring methods – Periodic medical status updates, continuous behavior observation programs, and reporting information from the facility may provide additional information for use in determining mental disorders.

- (2) Physical impairments.
- (3) Any medical, surgical, or other professional treatment.
- (4) Any condition, habit, or practice which might result in sudden or unexpected incapacitation.

3.2.3.2 Disqualifying Conditions. The presence of any of the following conditions, that have a high probability of sudden or unexpected incapacitation, unless adequately compensated shall disqualify the individual for unsupervised operation except as noted: Laboratory tests such as electrocardiogram (ECG) blood and urinalysis, x-rays and other tests should be used to rule out disqualifying conditions identified in this section.

(a) Respiratory Condition

- (1) Frequent severe uncontrolled attacks of asthma within the previous two years.
- (2) Tracheostomy or laryngectomy if they severely impair speech or cause shortness of breath.
- (3) Severe chronic pulmonary disease.

(b) Cardiovascular Condition

- (1) Ischemic heart disease, myocardial infraction, coronary insufficiency, or angina pectoris unless thorough history, physical examination, electrocardiogram (ECG), and other test procedures indicate satisfactory cardiac function and reserve.
- (2) Heart failures.
- (3) Arrhythmia other than benign extra systoles.
- (4) Valve replacement.
- (5) Pacemaker.
- (6) Implantable defibrillator.
- (7) Peripheral vascular insufficiency.
- (8) Arterial aneurysm.

(c) Endocrine, Nutritional, Metabolic Conditions

- (1) Diabetes mellitus. Uncontrolled diabetes, ketoacidosis, diabetic coma, or insulin shock within the previous two years.
 - (i) Stable diabetics adequately controlled by diet or oral medication may be qualified for solo operation.
 - (ii) Insulin dependent stable diabetics may also be qualified for solo operation providing adequate provisions are made to guard against insulin shock as certified by the designated medical examiner.

(d) Neurological Condition

- (1) History of epilepsy unless the examinee has remained seizure-free for at least the previous five years with medication or has remained seizure-free during the previous two years without medication.

(e) Mental Health.

- (1) Mental health conditions (listed in ANSI/ANS-3.4 Table 3), or a history of their presence, that pose a potential threat to safety shall be disqualifying in accordance with ANSI/ANS-3.4 Table 3. The examining physician shall review and assess any indications of these conditions.

(2) A copy of ANSI/ANS-3.4 Table 3 is attached as an appendix to this requalification plan.

(f) Medication. Any medication taken in such a dosage that the taking or temporary delay of taking might be expected to result in high probability of sudden incapacitation.

3.2.3.3 Specific Minimum Capacities Required for Medical Qualification

- (1) Ears. Puretone audiometric threshold average better than 30 dB, for speech frequencies 500, 1000, 2000, and 3000 Hz in better ear with or without the use of a hearing aid. If audiometric scores are unacceptable, qualification may be based upon onsite demonstration to the satisfaction of the facility operator of the examinee's ability to safely detect, interpret, and respond to speech and other auditory signals.
- (2) Eyes
 - (a) Near and distant visual acuity 20/40 in better eye, corrected or uncorrected. Corrective lenses may be used only as needed to correct a specific vision deficiency.
 - (b) Field of vision shall be at least 70 degrees in the horizontal meridian in each eye measured by confrontation
 - (c) Color vision adequate to distinguish among red, green, and orange-yellow signal lamps, and any other unique coding if required for safe operation of the facility as defined by the facility operator.
- (3) Respiratory. Free of disqualifying conditions enumerated in 3.2.3.2(a).
- (4) Cardiovascular. Normal configuration and function including normal blood pressure with tolerance to postural changes and capacity for exertion during emergencies. The examining physician shall report whether asymmetrical neck and peripheral pulses or resting pulse rates less than 50 or more than 100 beats per minute are normal for the individual and of no significance. If the examination reveals significant cardiac arrhythmia, murmur, untreated hypertension (over 160/100 mm Hg sustained) intolerance to postural changes, cardiac enlargement or other evidence to cardiovascular abnormality, a report of an evaluation shall accompany the medical examination report. This evaluation shall include, but is not limited to, an interpretation of an ECG and chest x-ray to indicate whether condition will cause sudden incapacitation.
- (5) Musculo-skeletal. Normal symmetrical structure, range of motion and power. If any impairment exists, the applicant shall demonstrate ability to effectively perform certain assigned duties.
- (6) Hematopoietic. Normal function.
- (7) Lymphatic. Normal function.
- (8) Neurological. Normal central and peripheral nervous system function. Tactile discrimination (Stereognosis) sufficient to distinguish among various shapes of control knobs and handles by touch.

3.2.3.4 Additional Examination. If the results of the examination including medical history are inconclusive, more comprehensive examination and testing as indicated by the designated medical examiner should be performed in order to determine whether or not the individual meets the requirements of section 3.2.3 and is free of disqualifying conditions.

3.2.4 On-the-job training. During each requalification cycle, the operator shall complete the following requirements for on-the-job training.

- (a) The licensed individual shall perform reactivity manipulations in any combination of reactor startups, shutdowns, and significant power changes. The recommended number is 10 with the individual having primary responsibility for at least 5 of those reactivity manipulations. For senior reactor operators, direct supervision of these operations may be considered equivalent to actual performance.
- (b) At a minimum, for each evaluation period, reactivity tasks including fuel movements, insertion and removal of experiments, and rod exchange or movements without power change shall be evaluated.
- (c) For the first and second 12-month intervals of the requalification period the licensed individual shall review the contents of abnormal and emergency procedures. All licensed individuals shall be cognizant of facility technical specifications, design, and procedure changes in a timely manner.

3.2.5 Operating Test or Evaluation. For the first and second 12-month intervals of the requalification period the licensed individual shall complete an operating test or evaluation. The operating test or evaluation shall be completed no later than the last day of the 12th month. Each operating test at a minimum shall include a reactor startup and shutdown, in addition to 5 tasks selected from the list below as appropriate to the facility and individual license level.

- (a) Perform pre-startup procedures for the facility, including operating of those controls associated with plant equipment that could affect reactivity.
- (b) Manipulate the console controls as required to operate the facility between shutdown and designated power levels.
- (c) Identify annunciators and condition-indicating signals and perform appropriate remedial actions where appropriate.
- (d) Identify the instrumentation systems and the significance of facility instrument readings.
- (e) Observe and safely control the operating behavior characteristics of the facility.
- (f) Perform control manipulations required to obtain desired operating results during normal, abnormal, and emergency situations.
- (g) Safely operate the facility's heat removal systems, including primary coolant, emergency coolant, and decay heat removal systems, and identify the relations of the proper operation of these systems to the operation of the facility.
- (h) Safely operate the facility's auxiliary and emergency systems, including operation of those controls associated with plant equipment that could affect reactivity or the release of radioactive materials to the environment.
- (i) Demonstrate or describe the use and function of the facility's radiation monitoring systems, including fixed radiation monitors and alarms, portable survey instruments, and personnel monitoring equipment.
- (j) Demonstrate knowledge of significant radiation hazards, including permissible levels in excess of those authorized, and ability to perform other procedures to reduce excessive levels of radiation and to guard against personnel exposure.
- (k) Demonstrate knowledge of the emergency plan for the facility, including, as appropriate, the operator's or senior operator's responsibility to decide whether the plan should be executed and the duties under the plan assigned.
- (l) Demonstrate the knowledge and ability as appropriate to the assigned position to assume the responsibilities associated with the safe operation of the facility.
- (m) Demonstrate the applicant's ability to function within the control room team as appropriate to the assigned position, in such a way that the facility licensee's procedures are adhered to and that the limitations in its license and amendments are not violated.

3.2.5.1. Operating Test Evaluation. An evaluation of the operating performance of the licensed individual shall be documented. The operational evaluation provides a measure of the knowledge, competence, and dexterity to operate the reactor and to take proper action in response to situations that may arise. Additional operational training shall be provided to correct performance weaknesses. Such

additional training shall be completed prior to the conclusion of the requalification program for that individual.

An overall score on the operation examination of unsatisfactory shall require that an evaluation by Chief, Reactor Operations or designated representative be performed. The evaluation shall determine if the deficiencies require that the individual's license be withdrawn pending completion of an accelerated retraining effort. The evaluation shall consider the individual's past performance record, supervisor's evaluation, and past test scores, as well as current deficiencies. Additional oral or operational examinations may also be given to aid in the evaluation. In any case, the individual shall be removed from licensed activities within four months if the candidate cannot achieve passing scores after re-examination.

Regardless of the score, if the evaluation indicates a deficiency in a critical area that affects safety, training shall be administered to promptly correct the critical deficiency.

- 3.2.6 Relicensing. Licenses may be renewed prior to their expiration upon application and successful completion of the requalification program and medical certification.
- 3.2.7 Licensed Function Requirement. At a minimum, each licensed operator shall actively perform the functions of a reactor operator or senior reactor operator for 4 hours per calendar quarter.
- 3.2.8 Absence from Licensed Functions. Licensed individuals who have not actively performed the functions of an operator or senior operator for a minimum of four hours per calendar quarter shall perform a minimum of six hours of licensed functions under the direction of a qualified individual holding the same or higher level license prior to being reinstated.
- 3.2.9 Exemptions. At the discretion of the NRC, any portion of the requalification examination and operating evaluation may be waived for the Chief, Reactor Operations or for individuals preparing the requalification examination.

4.0 DOCUMENTATION AND RECORDS

- 4.1 Documentation. The qualifications of licensed personnel shall be appropriately documented. The documentation should include the following:
 - (a) Medical/physical evaluation.
 - (b) Copy of the currently valid license.
 - (c) Records of requalification program including examinations.
- 4.2 Records. Records of the qualification, training, retraining, examinations, and evaluations of each licensed individual in the organization shall be retained for the duration of the currently valid license.

Table 3 – Mental health conditions

Disease/condition	Disqualified	Conditional restriction	Minimum requirements
Adjustment, conversion, dissociative disorders	With cognitive impairment.	A minimum of a no solo operations and shall take medication as prescribed (if applicable) restriction shall be required with no evidence of cognitive impairment and adequately controlled with medication and/or psychotherapy.	Diagnosis of condition without cognitive impairment with medical evidence that does not require treatment and individual can safely perform all licensed duties.
Attention deficit disorder	With cognitive impairment.	A minimum of a no solo operations and shall take medication as prescribed (if applicable) restriction shall be required with no evidence of cognitive impairment and adequately controlled with medication and/or psychotherapy.	Diagnosis of condition without cognitive impairment with medical evidence that does not require treatment and individual can safely perform all licensed duties.
Bipolar disorder	A bipolar disorder may not reach the level of psychosis but can be so disruptive of judgment and functioning (especially mania) so as to interfere with safety. All individuals with such a diagnosis shall be disqualified.	A definitive diagnosis of bipolar disorder requires at least a conditional restriction. Upon evaluation by a mental health professional utilizing specific bipolar diagnostic testing, individuals may be considered for no solo operations and shall take medication as prescribed restrictions if (1) stability is demonstrated as appropriate for the severity of the disorder; (2) history and symptoms do not constitute a threat to safe operations.	No definitive diagnosis of bipolar disorder.
(Continued)			

Table 3 – Mental health conditions (Continued)

Disease/condition	Disqualified	Conditional restriction	Minimum requirements
		Additional monitoring shall be implemented to ensure compliance with the medical treatment plan.	
Bereavement, dysthymia, anxiety, or depression	With cognitive impairment.	A minimum of a no solo operations and shall take medication as prescribed (if applicable) restriction is required with no evidence of cognitive impairment and adequately controlled with medication and/or psychotherapy.	Diagnosis of condition without cognitive impairment with medical evidence that does not require treatment and individual can safely perform all licensed duties.
Phobias	With cognitive or physical impairment.	Specific conditional restrictions as determined by the examining physician to address licensed duty limitations.	Diagnosis of condition without cognitive impairment with medical evidence that does not require treatment and individual can safely perform all licensed duties.
Personality disorders	Disorders severe enough to have associated overt act (or acts) are disqualifying. These acts involve aberrant behavior (or behaviors) that may include, but are not limited to, domestic violence, assault, poor social judgment, impulsivity, and disregard for or antagonism toward authority. These disorders demonstrate evidence of cognitive impairment and pose a threat to safety.	Medical evidence and the Continuous Behavior Observation Program demonstrate no current cognitive impairment and or aberrant behavior may result in a no solo operations license condition. Status reports may be required by the examining physician.	Diagnosis of condition without cognitive impairment with medical evidence that does not require treatment and individual can safely perform all licensed duties.
Psychosis	A psychosis diagnosis is disqualifying.	None	None
(Continued)			

Table 3 – Mental health conditions (Continued)

Disease/condition	Disqualified	Conditional restriction	Minimum requirements
Obsessive-compulsive disorder	With cognitive impairment.	A minimum of a no solo operations and shall take medication as prescribed (if applicable) restriction shall be required with no evidence of cognitive impairment and adequately controlled with medication and/or psychotherapy.	Diagnosis of condition without cognitive impairment with medical evidence that does not require treatment and individual can safely perform all licensed duties.
Substance dependence/ substance abuse	<p>A diagnosis or self-identification of substance dependence or abuse is disqualifying. "Substance" includes alcohol and prescription, over-the-counter, or illegal substances that could adversely affect an individual's ability to safely and competently perform his or her licensed duties.</p> <p>Substance dependence refers to the use of substances of dependence, which include alcohol and other drugs (i.e., PCP, sedatives and hypnotics, anxiolytics, marijuana, cocaine, opioids, amphetamines, hallucinogens, and other psychoactive drugs or chemicals). Substance dependence diagnosis is disqualifying unless there is clinical evidence, provided by a mental health professional, of recovery. Substance dependence is evidenced by one or more of the following:</p>	<p>Upon identification of any of the above substance dependence/substance abuse conditions, the licensee shall be administratively removed from licensed duties until an evaluation by a professional trained in evaluating substance abuse (e.g., CAC, CAD, SAP, SAE, etc.)¹ is performed. The results of this evaluation shall be reviewed by the examining physician to determine whether substance dependency or substance abuse exists that may affect the individual's ability to perform all licensed duties. With a diagnosis of substance dependency or abuse and compliance with the prescribed treatment program, the licensed operator, upon examining physician recommendation and NRC concurrence, may assume licensed duties with a no solo operations restriction. This no solo operations</p>	<p>No substance dependence or substance abuse. "Substance" includes alcohol and prescription, over-the-counter, or illegal substances that could adversely affect an individual's ability to safely and competently perform his or her licensed duties.</p>

(Continued)

Table 3 – Mental health conditions (Continued)

Disease/ condition	Disqualified	Conditional restriction	Minimum requirements
	<p>increased tolerance; manifestation of withdrawal symptoms; impaired control of use; or continued use despite damage to physical health or impairment of social, personal, or occupational functioning. Substance dependence can be accompanied by various deleterious effects on physical health as well as personal or social functioning. There are many other indicators of substance dependence in the history and physical examination. Treatment for substance dependence-related problems; arrests, including charges of driving under the influence of drugs or alcohol; and vocational or marital disruption related to drugs or alcohol consumption are important indicators.</p> <p>Substance abuse includes the use of the above substances under any of the following conditions: (a) any alcohol or drug offense (including charges of driving under the influence of drugs or alcohol) or administrative action (e.g., attendance at an educational or rehabilitation program in lieu of conviction; license denial, suspension,</p>	<p>restriction may be removed when the examining physician determines that the individual has complied with the prescribed treatment program and the current clinical status indicates that relapse is unlikely.</p>	
(Continued)			

Table 3 – Mental health conditions

Disease/condition	Disqualified	Conditional restriction	Minimum requirement
	cancellation, or revocation for refusal to be tested; educational safe driving program for multiple speeding convictions; etc.), (b) if a person has received a verified positive alcohol or drug test, or (c) evaluation by a mental health professional finds that an individual's misuse of a substance makes him or her unable to safely perform licensed duties.		
Suicide attempt	A suicide attempt and/or active suicidal ideation are disqualifying.	Medical evidence and the Continuous Behavior Observation Program demonstrate no current cognitive impairment, judgment impairment, and/or active suicidal ideation may result in a no solo operations license condition. Status reports may be required by the examining physician.	Absence of an underlying mental disorder and the ability to safely perform all licensed duties.
¹ CAC: certified addiction counselor; CADC: certified alcohol and drug counselor; SAP: substance abuse professional; SAE: substance abuse expert.			