

SAFETY EVALUATION REPORT

DOCKET: 70-27

LICENSE: SNM-42

LICENSEE: BWXT Nuclear Operations Group, Inc.
Lynchburg, Virginia

SUBJECT: SAFETY EVALUATION REPORT: BWXT NUCLEAR OPERATIONS
GROUP, INC. – LYNCHBURG REQUEST FOR REGULATORY RELIEF FROM
CONDUCTING THE MONTHLY EMERGENCY TEAM TRAINING AND
QUARTERLY EMERGENCY ORGANIZATION DRILLS

1.0 INTRODUCTION AND BACKGROUND

By letter dated May 27, 2020 (Reference 1), as supplemented by e-mail dated June 18, 2020 (Reference 2), BWXT Nuclear Operations Group, Inc. – Lynchburg (BWXT NOG-L) applied for U.S. Nuclear Regulatory Commission (NRC) approval to temporarily amend special nuclear materials License Number SNM-42. BWXT NOG-L is specifically requesting relief until December 31, 2020, from their Lynchburg, Virginia, Fuel Fabrication Facility Emergency Plan requirement to conduct monthly Emergency Team training and quarterly emergency organization drills due to the on-going Coronavirus Disease 2019 (COVID-19) Public Health Emergency (PHE). BWXT NOG-L states that the social distancing guidelines of the Commonwealth of Virginia's Executive Order (EO) 53 dated March 23, 2020 (Reference 3), and EO 61 dated May 8, 2020 (Reference 4), preclude the in-person gatherings due to public health and safety concerns that are necessary for the conduct of emergency preparedness training and drills referenced in the BWXT NOG-L letter.

Section 4.2.1.2.1, "Emergency Team," of the BWXT NOG-L Emergency Plan specifies the requirement that team members receive a minimum of 12 training sessions per year, which are normally performed monthly. Section 4.3, "Drills and Exercises," of the BWXT NOG-L Emergency Plan specifies that drills involving the entire emergency organization shall be conducted quarterly. BWXT NOG-L stated in its letter that the next quarterly emergency organization drill is due by June 30, 2020. BWXT NOG-L is requesting relief via a temporary license amendment until December 31, 2020.

This safety evaluation report (SER) documents the NRC staff's review of the BWXT NOG-L relief request. The relief from Sections 4.2.1.2.1 and 4.3 of the BWXT NOG-L Emergency Plan will be documented in new Safety Condition S-2(b) within SNM-42.

The U.S. Secretary of Health and Human Services declared a PHE on January 31, 2020, which was renewed on April 26, 2020, under Section 319 of the Public Health Service Act (Title 42 of the U.S. Code Section 247d), in response to the COVID-19 PHE. On March 12, 2020, the Governor of the Commonwealth of Virginia declared that a state of emergency exists to prepare and coordinate the response to the potential spread of COVID-19 and has since issued several executive orders to reinforce the Commonwealth's response to COVID-19.

2.0 REGULATORY EVALUATION

The NRC may grant a licensee's request to amend its license if the staff determines that the application meets the requirements of Section 70.34, "Amendment of licenses," of Title 10 of the *Code of Federal Regulations* (10 CFR).

For changes to emergency preparedness commitments, the NRC may amend a license if the staff determines that requested changes will maintain adequate protection of public health and safety and the environment and not be inimical to the common defense and security.

3.0 REGULATORY REQUIREMENTS

10 CFR 70.22(i)(3)(x), "Training," states:

A brief description of the frequency, performance objectives and plans for the training that the licensee will provide workers on how to respond to an emergency including any special instructions and orientation tours the licensee would offer to fire, police, medical and other emergency personnel. The training shall familiarize personnel with site-specific emergency procedures. Also, the training shall thoroughly prepare site personnel for their responsibilities in the event of accident scenarios postulated as most probable for the specific site, including the use of team training for such scenarios.

10 CFR 70.22(i)(3)(xii), "Exercises," requires, in part, that the BWXT NOG-L Emergency Plan must include provisions for conducting biennial onsite exercises to test response to simulated emergencies.

3.1 REGULATORY GUIDANCE

Regulatory Guide (RG) 3.67, "Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities" (Reference 5), Section 7.2, "Training," states, in part:

Describe the topics and general content of training programs used for training the onsite emergency response staff. Specify the training afforded to those personnel who prepare, maintain, and implement the emergency plan. Ensure that the procedures include schedules and lesson plans for the training, frequency of retraining, and the estimated number of hours of initial training and retraining that will be provided. Include the training requirements for each position in the emergency organization.

Section 7.3, "Drills and Exercises," of RG 3.67, states, in part:

Describe provisions for periodic drills and exercises to test the adequacy of implementing procedures, to test emergency equipment and instrumentation, and to ensure that the emergency personnel are familiar with their duties...Typically, drills are internal tests of specific licensee emergency response functions, related functions are often simulated, and offsite organizations are not invited to participate...It is expected that internal drills will be conducted more often (at least annually) than full-scale exercises. Each applicant should establish a drill frequency that will maintain proficiency in its emergency response organization.

4.0 TECHNICAL EVALUATION

Section 4.2.1.2.1, of the BWXT NOG-L Emergency Plan, states, in part:

Once becoming an active member, team members receive a minimum of twelve training sessions per year. Normally, training is performed monthly; however, vacation and shutdown schedules may result in two training sessions occurring in one month and no training in the previous or subsequent month.

Section 4.3, "Drills and Exercises," of the BWXT NOG-L Emergency Plan, states, in part:

Drills that involve the entire emergency organization and include activation of the EOC [emergency operations center] shall be conducted quarterly. Due to the sensitivity of manufacturing processes at the site to unscheduled interruption, all drill times are preannounced. Actual EOC activations that include both EMO [emergency management organization] and ERO [emergency response organization] organizations can be substituted for the quarterly drill requirement.

In its letter, BWXT NOG-L stated that the implementation of social distancing guidelines under the Commonwealth of Virginia's EO 53 and EO 61 preclude the in-person gatherings that are necessary for the conduct of emergency preparedness training and drills. BWXT NOG-L requested relief via a temporary license amendment until December 31, 2020, from the above listed BWXT NOG-L Emergency Plan requirements. In addition, BWXT NOG-L stated that the Commonwealth of Virginia has not established a firm date for easing of the guidelines for in-person gatherings.

Upon review, the NRC staff was not able to identify within BWXT NOG-L's relief request application the basis or criteria of the listed Commonwealth of Virginia's EOs that would prevent the performance of the monthly training for BWXT NOG-L Emergency Team members or the performance of quarterly emergency preparedness drills. Therefore, the NRC staff submitted a request for additional information (Reference 6) to BWXT NOG-L requesting that BWXT NOG-L clarify the criteria from the applicable requirements or guidance, and the corresponding site-specific impacts that would prevent performance of the monthly training and quarterly drills. Additionally, the staff requested information related to any specific compensatory measures and/or contingency plans implemented to ensure that the BWXT NOG-L emergency response readiness will be effectively maintained during the potential suspension of the monthly training and quarterly drills.

In BWXT NOG-L's response (Reference 2) to NRC staff's request, the applicant stated that the Commonwealth of Virginia's Second Amended EO 53 dated May 4, 2020, mandated that all public and private in-person gatherings of more than 10 individuals was prohibited as further clarified in EO 55. The NRC staff noted that the "gathering" restrictions of the Commonwealth of Virginia's Second Amended EO 53, Directive Item 1, expired on June 10, 2020. In addition, EO 55 expired on June 10, 2020, and the Third Amended EO 61 expired on June 12, 2020. Thus, based on the expiration of the EOs referenced in the BWXT NOG-L letter, the NRC staff requested that BWXT NOG-L provide any needed modifications to the relief request, its basis, and the applicable requirements or guidance. In BWXT NOG-L's response to NRC staff's request, BWXT NOG-L stated that the facility continues to implement a number of protective measures to prevent the introduction of COVID-19 into the NOG-L facility and that they continue to follow the guidelines of the referenced EOs with respect to minimizing the spread of

COVID-19. As an example, EO 61 and subsequent amendments provide recommendations for best practices for businesses to utilize to keep employees safe. These social distancing recommendations include limiting the number of in-person gatherings, continued social distancing between co-workers, and keeping meetings as short as possible. Even though the listed relief request application EOs have expired, when the EOs were issued, BWXT NOG-L took actions to comply with the EOs to limit meeting sizes and adhere to social distancing guidelines to minimize the potential for spread of COVID-19 within the BWXT NOG-L facility.

The criteria from the applicable EOs, requirements, guidance, and/or the corresponding site-specific impacts that prevent the performance of the monthly Emergency Team training and quarterly emergency organization drills, as stated in BWXT NOG-L's response, included:

- Due to the restricted size of the EOC and the time required to conduct an adequate quarterly drill, BWXT NOG-L would not be able to comply with recommendations outlined in EO 61.
- The EMO response has a total of 14 personnel/primary positions who are required to respond to the EOC. The training plan incorporates a requirement for other trained positions holders to observe the drill to meet qualification requirements. However, the number of personnel required to staff the EOC exceeds the 10-person limitation mandated by the Second Amended EO 53.
- The Emergency Team training is a two weekend training cycle with 42 members receiving 8 hours of training each day, plus 5 additional instructors/training officers. The total number of team members per session would exceed the 10 person EO mandated limit.
- The classroom training is held at the Emergency Team training facility, which does not accommodate appropriate social distancing.
- The hands-on training evolutions require that team members be in close proximity during the training.
- All of the state agency certified instructors are required to follow the EOs and do not participate in training that would violate the EOs.

Additionally, the NRC staff requested BWXT NOG-L to provide specific compensatory measures and/or contingency plans that will be implemented to ensure that the BWXT NOG-L emergency response readiness will be effectively maintained during the potential suspension of the monthly training and quarterly drills. BWXT NOG-L's letter and response to the staff request provide facility actions and examples of how previous and ongoing emergency organization actions have maintained BWXT NOG-L's emergency response readiness. These compensatory measures and/or contingency plans actions are:

- Annual specialized training sessions outline the requirements of the BWXT NOG-L Emergency Plan and supporting procedures and are provided annually for all personnel designated as Emergency Director, Assistant Emergency Director, and Emergency Coordinator. These training sessions cover the specific duties for each position of the management team with emphasis on the requirements for event declaration, offsite agency notifications and incident site-to-EOC communications.

- Additional training necessary to provide Advance Life Support medical treatment (i.e., Enhanced, Intermediate, Paramedic, etc.) or improve fire-fighting capabilities (i.e., Fire Fighter 2) are considered by the Emergency Team leadership to ensure facility emergency response needs are satisfied.
- BWXT NOG-L has committed to meet the requirements of NFPA 600, Standard on Facility Fire Brigades, which ensures additional advanced training has been provided to the Emergency Team.
- In June 2020, BWXT released the annual emergency organization training. This general emergency organization training is combined with all EMO/EOC positions for individuals that are also going through position specific training.
- BWXT requires Emergency Team personnel to obtain Commonwealth of Virginia State Certifications (i.e. Virginia Department of Fire Programs Firefighter I, Emergency Medical Technician EMT-Basic, OSHA Office of Emergency Medical Services (OEMS), Hazardous Waste Operations - 40-hour certification, Virginia Association of Volunteer Rescue Squads – Emergency Vehicle Operation Course). This regulatory certified based program ensures a minimum foundation that far exceeds the basic requirement of the Occupational Safety and Health Administration (OSHA) guidance for fire brigades.
- BWXT NOG-L requires Emergency Team personnel to obtain qualifications as National Incident Management System / Incident Command System (NIMS/ICS), etc.
- The Virginia Office of Emergency Medical Services (OEMS) certifications require ongoing continuing education units (CEUs). BWXT is supporting the Emergency Team members to obtain CEUs via OEMS approved computer based opportunities.
- The emergency organization, due to COVID-19, is currently activated in a phased approach to implement the facility response plan.
- The Emergency Team is periodically activated for response to various issues within the facility (i.e. medical emergencies, alarm notifications, hazmat, fire, etc.). To date, the Emergency Team has been called to respond to various situations within the facility 96 times for a total of 215 individual responder actions.
- Many of the Emergency Team members are active with outside emergency organizations and continue to respond within the community to various emergency situations.
- BWXT NOG-L is evaluating the development of tabletop drills and computer based trainings to compensate for the quarterly emergency organization drill requirements.
- If EOs are issued that limit gatherings, and BWXT NOG-L is not able to continue performing the monthly Emergency Team trainings, BWXT NOG-L will evaluate the implementation of additional on-line training to compensate for the suspension of the monthly training requirements.

Based on the compensatory measures stated above, BWXT NOG-L concludes that the temporary suspension of the monthly Emergency Team training and quarterly emergency organization drills will have negligible impact on the level of Emergency Team or EMO readiness and that there will be no impact expected to the public, facility workers or the environment, if the relief request is granted.

As listed in the above bullet items, BWXT NOG-L states that a compensatory measure for the temporary suspension of the monthly Emergency Team training are annual specialized training sessions specific to the personnel designated as Emergency Director, Assistant Emergency Director, and Emergency Coordinator, that cover the specific duties for each position of the management team with emphasis on the requirements for event declaration, offsite agency notifications and incident site-to-EOC communications. Therefore, the NRC staff finds that the above listed compensatory measures and/or contingency plans to provide training activities in lieu of conducting monthly Emergency Team training, address applicable portions of the guidance in RG 3.67, Section 7.2, and thus are acceptable. As implemented, they should ensure that the BWXT NOG-L emergency response readiness will be effectively maintained during the temporary suspension of the monthly Emergency Team training.

The NRC staff has also reviewed applicable aspects the NRC inspections of the BWXT NOG-L Emergency Plan Program. The NRC staff selected several recent inspection reports, listed in the table below, that document NRC observance of the recent biennial exercise, two recent drills, and a review of the BWXT NOG-L Emergency Plan Program.

NRC Inspection Reports of the BWXT NOG-L Emergency Plan Program			
Inspection Report Number	Part of the Inspector's inspection activities	Date	ADAMS Accession No.
70-27/2020-001	Emergency Plan program records, training, written agreements, equipment storage, and independent audit	April 30, 2020	ML20121A219
70-27/2019-005	Observed the biennial exercise	January 24, 2019	ML20024F642
70-27/2019-004	Observed third quarter Emergency Team exercise	October 24, 2019	ML19298A117
70-27/2019-003	Observed quarterly emergency drill	July 30, 2019	ML19211D562
70-27/2019-002	Emergency Plan program records, training, written agreements, equipment storage, and independent audit	April 17, 2019	ML19107A163

These listed inspection activities resulted in findings that no violations of more than minor significance were identified. As such, these NRC inspection findings demonstrate that BWXT NOG-L has established and maintains proficiency in the emergency response preparedness.

4.1 UPDATED REGULATORY RELIEF REQUEST AND RETURN TO FULL COMPLIANCE

The Commonwealth of Virginia's EOs 53 and 61, when issued and active, were considered the more restrictive social gathering (i.e., limit of 10 people for social gatherings) guidelines. When BWXT NOG-L submitted their May 27, 2020, relief request letter, they were operating under these more restrictive EOs. However, during the NRC staff's review of the relief request

application in June 2020, the letter's referenced EOs had expired. Thus, since the more restrictive EOs had expired in June 2020, BWXT NOG-L conducted the June monthly Emergency Team training. As stated in BWXT NOG-L's response dated June 6, 2020, BWXT NOG-L resumed the monthly training sessions for the Emergency Team and will complete twelve training sessions as required in the BWXT NOG-L Emergency Plan, Chapter 4, Section 4.2.1.1. The training sessions have been structured to provide adequate social distancing.

In its relief letter, BWXT NOG-L states that plant management will take into consideration applicable State or Federal guidance on the easing of guidelines for in-person gatherings prior to resumption of Emergency Team training and emergency preparedness drills. Thus, BWXT NOG-L has updated their monthly Emergency Team training relief request. In BWXT NOG-L's response, they have modified their relief request application to request:

BWXT respectfully requests regulatory relief for its quarterly drills and Emergency Team training through December 31, 2020. As mentioned above, Emergency Team training has recently resumed, ***therefore the requested regulatory relief from Emergency Team training would only be utilized if another Executive Order was issued restricting gathering size.*** [emphasis added]

Therefore, BWXT NOG-L has updated the relief request to continue performing the monthly Emergency Team training, unless the BWXT NOG-L plant management determines that the state has implemented more restrictive social gathering guidelines. BWXT NOG-L states that if this determination is made, BWXT NOG-L plant management would then invoke the NRC approved relief request to temporarily suspend the performance of the Emergency Team training.

The relief request letter also states that BWXT NOG-L Environmental Protection and Industrial Safety will develop and maintain a compliance plan for Emergency Team training and emergency preparedness drills to ensure completion of deferred requirements from the first and second calendar quarters of 2020. The compliance plan will ensure full compliance will be achieved by December 31, 2020.

The NRC staff finds that, based on (1) the listed compensatory measures and/or contingency plans to be implemented in lieu of monthly Emergency Team training and quarterly emergency organization drill performance; (2) the commitment to continue to perform monthly Emergency Team training, unless it is determined that more restrictive social distancing guidelines have been issued; (3) the commitment to achieve full compliance by December 31, 2020, and (4) the NRC staff's other listed findings and safety conclusions noted in this SER, the temporary suspension of the performance of monthly Emergency Team training and quarterly emergency organization drills will not decrease the level of Emergency Team or EMO preparedness. In addition, the NRC staff also finds that the temporary suspension of the performance of monthly Emergency Team training and quarterly emergency organization drills would not decrease the effectiveness of the BWXT NOG-L Emergency Plan.

Therefore, the NRC staff finds that there will be no negative impacts to public health and safety related to the proposed temporary change to the BWXT NOG-L Emergency Plan to temporarily suspend the performance of the monthly Emergency Team training and quarterly emergency organization drills. The NRC staff concludes that the proposed temporary amendment to SNM-42 to temporarily suspend the performance of the BWXT NOG-L Emergency Plan's monthly Emergency Team training and quarterly emergency organization drills until

December 31, 2020, continues to meet the applicable criterion of 10 CFR 70.22(i)(3) and provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency. However, this amendment is considered a temporary change by the NRC staff. After December 31, 2020, this temporary BWXT NOG-L Emergency Plan change will be removed and the periodicity for the performance of the Emergency Team training will go back to monthly and the periodicity of the performance of the emergency organization drills will go back to quarterly. As such, a new license condition, S-2(b), has been added to SNM-42, to document this BWXT NOG-L Emergency Plan temporary change as follows:

General condition of approval:

S-2(b) As requested by the licensee in letter 20-045 dated May 27, 2020, and supplemented by email dated June 18, 2020 (ADAMS Accession No. ML20171A425), the Emergency Plan is temporarily changed to not require the performance of the monthly Emergency Team training and quarterly emergency organization drills until December 31, 2020. After December 31, 2020, this temporary Emergency Plan change will be removed, the periodicity for the performance of the Emergency Team training will go back monthly, and the periodicity of the performance of the emergency organization drills will go back to quarterly

5.0 ENVIRONMENTAL REVIEW

The NRC staff determined that the proposed temporary change to the BWXT NOG-L Emergency Plan is administrative, organizational, or procedural in nature. The temporary change to the plan will not impact any effluents, will not result in any changes to radiation exposures, does not have construction impacts, and does not increase the potential for radiological accidents. Therefore, the amendment to temporarily revise the BWXT NOG-L Emergency Plan is categorically excluded from the requirements to prepare a site-specific environmental assessment consistent with 10 CFR 51.22(c)(11). In accordance with 10 CFR 51.22(b), neither an environmental assessment nor an environmental impact statement is warranted for this action.

6.0 CONCLUSION

The NRC staff concludes that the temporary change is acceptable, and the BWXT NOG-L Emergency Plan will continue to provide reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency during this temporary relief period. Therefore, the staff determined that the application continues to meet the applicable requirements of 10 CFR 70.22(i)(3) and meets the requirements of 10 CFR 70.34.

7.0 REFERENCES

1. BWXT Nuclear Operations Group, Inc. – Lynchburg, “Request for Regulatory Relief from Specific requirements of Chapter 8 (Emergency Plan) of the SNM-42 License Application – COVID-19 Pandemic Response,” dated May 27, 2020 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML20149K365).

2. E-mail, Terry, Christopher to Downs, James, "Request for Additional Information on BWXT NOG-L Letter 20-045 - Emergency Plan Relief Request," dated June 18, 2020 (ADAMS Accession No. ML20171A425).
3. Commonwealth of Virginia Executive Order 53 dated March 23, 2020 [[https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-53-Temporary-Restrictions-Due-To-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-53-Temporary-Restrictions-Due-To-Novel-Coronavirus-(COVID-19).pdf)].
4. Commonwealth of Virginia Executive Order 61 dated May 8, 2020 [[https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-\(COVID-19\).pdf](https://www.governor.virginia.gov/media/governorvirginiagov/executive-actions/EO-61-and-Order-of-Public-Health-Emergency-Three---Phase-One-Easing-Of-Certain-Temporary-Restrictions-Due-To-Novel-Coronavirus-(COVID-19).pdf)].
5. Regulatory Guide (RG) 3.67, "Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities," Revision 1, dated April 2011 (ADAMS Accession No. ML103360487).
6. E-mail, Downs, James to Terry, Christopher, "Request for Additional Information on BWXT NOG-L letter 20-045," dated June 16, 2020 (ADAMS Accession No. ML20169A508).

PRINCIPAL CONTRIBUTOR:
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