

**Office of Nuclear Reactor Regulation  
Topical Report Safety Evaluation**

Topical Report Information		Review Information	
Report Number: EPRI 3002019436 Title: "Remote Source Verification During a Pandemic or Similar State of Emergency: Screening Criteria and Process Guidance ADAMS Accession No: ML20205L619 and ML20205L618 EPID: L-2020-TOP-0039 Docket No.: 99902021		Division/ Branch: DRO Project Manager: J. Holonich Reviewers: A. Armstrong, P. Prescott	
<b>Determination of Minimal Revisions</b> Is this the review of very limited scope?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Does the TR change maintain the original SE conclusions?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Do the staff methods for establishing the original conclusions remain unaffected?      Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If any of the above questions are answered no, a simplified safety evaluation cannot be used.			
<b>Applicable Review Guidance Used</b>  Standard Review Plan (SRP) for the Review of Safety Analysis Reports for Nuclear Power Plants: LWR Edition (NUREG-0800, Formerly issued as NUREG-75/087), Chapter 17.5, "Quality Assurance Program Description - Design Certification, Early Site Permit and New License Applicants" Revision 1, Dated 8/2018.  Appendix B to Title 10 of the <i>Code of Federal Regulations</i> (10 CFR) Part 50, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants"			

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**Description of Topical Report Content (1000 Word Maximum)**

The Electric Power Research Institute's (EPRI's) submittal of Technical Report (TR) 3002019436, "Remote Source Verification During a Pandemic or Similar State of Emergency," provides industry guidance for performing remote source verification activities during times of pandemics and states of emergency. The EPRI TR 3002019436 was developed with industry stakeholders, which included NRC staff, to provide the option within a licensee's or vendor's QA program for remote performance of a source verification when required during exigent conditions. EPRI's report provides guidance for application of video and other real-time communication technologies for the successful performance of remote source verification. Since the capabilities of remote source verification are limited, the techniques included in the report are intended for use only in extreme circumstances such as a global pandemic, when performing on-site source verification may not be possible due to conditions that threaten the health and safety of individuals performing the verification or the work being verified. Successful use of remote source verification involves screening to ensure the activity being conducted by the supplier can be adequately verified, using remote source verification techniques, clearly defined scope and objectives, technology required to remotely witness important aspects of the activity in real time, contingency plans to address the potential for technology failures during the activity, and means for documenting the activity in a format that provides the verifying entity with objective evidence of the activity.

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Source verifications are typically performed to verify successful completion of certain fabrication and testing activities related to equipment that are complex, expensive, or designated for use in nuclear safety-related applications. Regulatory requirements and guidance related to the use of source verification to accept a basic component for use, either with or without commercial-grade dedication, are provided in Criterion VII of Appendix B to 10 CFR Part 50; NRC Inspection Procedure 43004, "Inspection of Commercial-Grade Dedication Programs" (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16344A092); and EPRI TR 3002002982, Revision 1 to EPRI NP-5652 and TR-102260, "Plant Engineering: Guideline for the Acceptance of Commercial-Grade Items in Nuclear Safety-Related Applications," dated September 2014 (ADAMS Accession No. ML18199A161), which was endorsed by NRC Regulatory Guide 1.164, "Dedication of Commercial-Grade Items for Use in Nuclear Power Plants," Revision 0, dated June 2017 (ADAMS Accession No. ML17041A206), and defines source verification. In all cases, both the regulatory requirements and guidance refer to source verifications being performed "at the contractor or subcontractor source," "by direct observation," or "at the location of material procurement or manufacture," respectively.

Given technological advances since the requirements of Appendix B were first promulgated, EPRI TR 3002019436 guidance proposed alternatives in lieu of the regulatory requirements of Criterion VII for performing source verifications. The proposed alternative provides guidance for the application of video and other real-time communication technologies for the successful performance of remote source verification. The use of this method of verification is only applicable when a pandemic or similar state of emergency has been declared restricting access or travel to and/or from those locations affected by the declaration.

EPRI TR 3002019436 was prepared to provide licensees and vendors with guidance for using remote communication and video capabilities to perform remote source verification in extreme circumstances where it is not possible to perform onsite source verification due to conditions that threaten the health and safety of individuals performing the verification. The NRC staff reviewed EPRI TR 3002019436 and determined from its review, that implementing adequate quality controls prior to witnessing the remote source verification should address the limitations identified in EPRI TR 3002019436.

EPRI TR 3002019436 provides a screening of the specific source verification to be performed to determine if remote source verification is appropriate for the activities

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being verified prior to conducting the activity remotely. The EPRI TR 3002019436 required screening employs the following six attributes with associated guidance provided:

1. Is it possible to do onsite verification?
2. Is the activity an assessment?
3. Can the activity be adequately verified remotely?
4. Can progress and results be captured and communicated in real-time?
5. Can a maintainable record be created for objective evidence? and
6. Does original requestor concur with the use of remote verification?

Based on the implementation of adequate quality controls and adherence to the guidance of EPRI TR 3002019436, the NRC staff concluded that remote source verification will be an effective alternative for source verification activities during exigent conditions. Although remote source verification cannot, and should not, fully replace the ability to observe and verify activities at the source, the use of modern communication technologies does permit a remote source verification plan to be developed and implemented that will continue to satisfy the relevant criteria of Appendix B to 10 CFR Part 50. Therefore, EPRI TR 3002019436 guidance provides an equivalent, and acceptable level of quality control during exigent conditions.

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**Conclusions**

Although remote source verification is not intended to replace the ability to observe and verify activities at the source, the NRC staff finds that available technologies can be effectively applied to sufficiently and successfully verify certain activities in extreme circumstances as discussed in EPRI TR 3002019436. The NRC staff has reviewed EPRI TR 3002019436 and determined that appropriate implementation of the guidance and quality controls, will continue to meet the requirements of Criterion VII of Appendix B to 10 CFR Part 50, and therefore, is an acceptable form of meeting the regulatory requirements for source verifications during pandemics or similar states of emergency

**Conditions and Plant-Specific Action Items**

N/A

**ADAMS Accession Nos: Package: ML20244A016; Email: ML20244A108;  
SE: ML20244A017**

Approval	Printed Name	Signature	Date
<b>Technical Branch Chief</b>	Kerri Kavanagh	/RA/	Sep 10, 2020
<b>Projects Branch Chief</b>	Dennis Morey	/RA/	Sep 16, 2020