



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

June 4, 2020

LICENSEE: Entergy Operations, Inc.

FACILITY: Arkansas Nuclear One, Units 1 and 2

SUBJECT: SUMMARY OF APRIL 29, 2020, TELECONFERENCE WITH ENTERGY OPERATIONS, INC. TO DISCUSS A PROPOSED RELIEF REQUEST REGARDING USE OF CARBON FIBER REINFORCED POLYMER PIPING FOR UNDERGROUND SERVICE WATER PIPING AT ARKANSAS NUCLEAR ONE, UNITS 1 AND 2 (EPID L-2020-LRM-0029)

On April 29, 2020, a Category 1 public meeting was held by teleconference between the U.S. Nuclear Regulatory Commission (NRC) and representatives of Entergy Operations, Inc. (the licensee). The purpose of the meeting was to discuss a planned relief request for Arkansas Nuclear One (ANO), Units 1 and 2. The licensee plans to submit a relief request, pursuant to Title 10 of the *Code of Federal Regulations* Section, 50.55a(z)(1), "Acceptable level of quality and safety," to proactively use a carbon fiber reinforced polymer (CFRP) piping system for underground service water piping because CFRP was not a material available for use in the original construction codes. The meeting notice and agenda, dated April 14, 2020, are available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML20105A288. A list of meeting attendees is enclosed.

During the meeting, the licensee presented information on the purpose for the planned relief request, an overview of the CFRP technology, the affected service water system piping, comparisons to other similar CFRP applications, and the planned schedule. The licensee's slide presentation can be found in ADAMS at Accession No. ML20114E275.

The licensee clarified various aspects of the planned CFRP application, including the following:

- (1) CFRP composite will be applied on 36-inch and 42-inch diameter piping, which are large enough to access for the application;
- (2) witness test panels will be prepared during the CFRP installation to confirm the mechanical properties of the installed CFRP composite;
- (3) overlapping areas of CFRP fabric layers will be installed in accordance with the specified procedures to ensure adequate integrity;
- (4) the service water system has an intake screen that can prevent foreign object ingress into the piping and its potential impact on the CFRP composite;
- (5) there is no need to change the design temperature of the service water system piping as a result of the CFRP application; and

- (6) there is no fire risk associated with the service water system piping and the CFRP application.

The NRC staff queried the licensee throughout the presentation and provided feedback concerning the appropriate level of detail to be provided in the relief request to promote an efficient review by the NRC staff.

The licensee stated that it expects to submit the relief request in July of 2020, or earlier, and will request NRC approval by August of 2021 to support its anticipated construction timeframe.

No regulatory decisions were made at this meeting. Members of the public participated in the meeting. Public Meeting Feedback forms were not received.

Please direct any inquiries to me at 301-415-4037, or by e-mail at [Thomas.Wengert@nrc.gov](mailto:Thomas.Wengert@nrc.gov).

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Thomas J. Wengert, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-313 and 50-368

Enclosure:  
List of Attendees

cc: Listserv

LIST OF ATTENDEES

APRIL 29, 2020, TELECONFERENCE TO DISCUSS A PROPOSED RELIEF REQUEST

REGARDING THE USE OF CARBON FIBER REINFORCED POLYMER PIPING

FOR UNDERGROUND SERVICE WATER PIPING

ENTERGY OPERATIONS, INC.

ARKANSAS NUCLEAR ONE, UNITS 1 AND 2

<b>Name</b>	<b>Organization</b>
T. Wengert	Nuclear Regulatory Commission (NRC)
M. Mitchell	NRC
J. Tsao	NRC
A. Rezai	NRC
S. Min	NRC
C. Basavaraju	NRC
A. Klett	NRC
V. Bond	Entergy Operations, Inc. (Entergy)
B. Thweatt	Entergy
D. Sojka	Entergy
R. Brumwell	Entergy
J. Cummins	Entergy
R. Jones	Entergy
B. Daiber	Entergy
D. Bice	Entergy
A. Pridmore	Structural Technologies, LLC
E. Cernic	Structural Technologies, LLC
L. Nadeau	Structural Technologies, LLC
C. Burton	Structural Technologies, LLC
R. Ojdrovic	Simpson Gumpertz & Heger
B. Bevill	State of Arkansas

Enclosure

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**ADAMS Accession Nos.:**

**Meeting Notice ML20105A288,**

**Meeting Summary ML20153A225**

**Meeting Slides ML20114E275**

\*by e-mail

OFFICE	NRR/DORL/LPL4/PM*	NRR/DORL/LPL4/LA*	NRR/DORL/LPL4/BC*	NRR/DORL/LPL4/PM*
NAME	TWengert	PBlechman	JDixon-Herrity	TWengert
DATE	06/04/2020	06/04/2020	04/29/2020	06/04/2020

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