



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

February 17, 2022

Dr. Gregory Piefer  
Chief Executive Officer  
SHINE Technologies, LLC  
3400 Innovation Court  
Janesville, WI 53546

SUBJECT: SHINE MEDICAL TECHNOLOGIES, LLC - UPDATE TO OPERATING LICENSE  
APPLICATION TECHNICAL REVIEW SCHEDULE IN RESPONSE TO PHASED  
STARTUP OPERATIONS APPLICATION SUPPLEMENT  
(EPID NO. L-2022-NEW-0004)

Dear Dr. Piefer:

The purpose of this letter is to provide an update on schedule and resource needs in response to the SHINE Medical Technologies, LLC (SHINE) "Application for an Operating License Supplement No.15, Submittal of the Phased Startup Operations Application Supplement," dated January 27, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22027A354). In anticipation of this supplement, the U.S. Nuclear Regulatory Commission (NRC) sent SHINE a letter on August 3, 2021, acknowledging that a new review schedule would be developed once the NRC staff received and assessed the supplement (ADAMS Accession No. ML21209A997). As such, based on the review of the phased startup operations application supplement, the NRC staff determined that it could accommodate the additional scope and plans to complete the operating license application review by October 2022, in accordance with the generic milestone schedule for non-power production or utilization facility operating licensing application reviews, as part of the NRC's implementation of Section 102(c) of the Nuclear Energy Innovation and Modernization Act. To itemize the resources required to support the review of the phased startup operations application supplement, the NRC staff created a new enterprise project identifier (EPID No. L-2022-NEW-0004). The NRC staff anticipates that the total level of effort needed to support this review will be up to 1,000 staff hours (approximately 5 percent of the original estimate of 22,000 staff hours for the review of the SHINE operating license application).

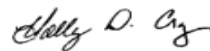
Enclosed with this letter is the current SHINE Operating License Application Technical Review Schedule. The NRC staff will follow the enclosed schedule to complete the reviews required by Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50, "Domestic Licensing of Production and Utilization Facilities," and 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions." This review schedule does not account for potential delays associated with the completion of construction of the facility.

In the coming months, the NRC staff expects to conduct additional regulatory audits and public meetings with SHINE to further the NRC staff's understanding of the information provided and promote the efficiency of the NRC staff's review. The NRC staff may need to issue requests for additional information as part of its review to resolve information insufficiencies in the

supplement and to support the NRC staff's findings of reasonable assurance. Untimely resolution of information insufficiencies, particularly in the phased startup operations application supplement and remainder of the instrumentation and control systems review, may result in extending the review schedule. Such circumstances include applicant delays in providing requested information to the NRC staff and the receipt of new information affecting the scope of the review. The NRC staff will promptly communicate any schedule changes that would extend the expected review completion date beyond October 2022.

If you have any questions, please contact me at (301) 415-1053, or by electronic mail at [Holly.Cruz@nrc.gov](mailto:Holly.Cruz@nrc.gov).

Sincerely,



Signed by Cruz, Holly  
on 02/17/22

Holly D. Cruz, Senior Project Manager  
Non-Power Production and Utilization  
Facility Licensing Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

Docket No. 50-608  
Construction Permit No. CPMIF-001

Enclosure:  
As stated

cc w/enclosure: See next page

SHINE Medical Technologies, LLC

Docket No. 50-608

cc:

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Test, Research and Training  
Reactor Newsletter  
Attention: Amber Johnson  
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APPLICATION TECHNICAL REVIEW SCHEDULE IN RESPONSE TO PHASED  
STARTUP OPERATIONS APPLICATION SUPPLEMENT (EPID NO. L 2022 NEW  
0004) DATED: FEBRUARY 17, 2022

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**ADAMS Accession No.: ML22047A179****NRR-106**

OFFICE	NRR/DANU/PM	NRR/DANU/LA	NRR/DANU/BC	NRR/DANU/PM
NAME	HCruz	NParker	JBorromeo	HCruz
DATE	2/14/2022	2/17/2022	2/17/2022	2/17/2022

**OFFICIAL RECORD COPY**

**SHINE Medical Technologies, LLC**

## Operating License Application

## Technical Review Schedule

<b>Milestone</b>	<b>Technical Review Area</b>	<b>Previous Scheduled Completion Date</b>	<b>Updated Scheduled Completion Date</b>	<b>Actual Completion Date</b>	<b>Status</b>
Receipt of Operating License Application	Safety and Environmental	August 2019	-	August 2019	Complete
Acceptance and Docketing of Operating License Application	Safety and Environmental	October 2019	-	October 2019	Complete
Environmental Scoping Meeting	Environmental	December 2019	-	December 2019	Complete
Issuance of Notice of Opportunity to Request Hearing	Safety and Environmental	January 2020	-	January 2020	Complete
Closing of Opportunity to Request Hearing	Safety and Environmental	March 2020	-	March 2020	Complete
Advisory Committee on Reactor Safeguards (ACRS) Subcommittee Information Meeting	Safety	September 2020	-	November 2020	Complete
SHINE Submission of Source and Byproduct Materials License Amendment Request	Safety and Environmental	April 2021	-	April 2021	Complete
Issuance of Source and Byproduct Materials License Amendment Request	Safety and Environmental	TBD	November 2021	December 2021	Complete
SHINE Submission of Environmental Report Supplement	Environmental	TBD	November 2021	November 2021	Complete
SHINE Submission of Operating License Application Supplement for Staggered Approach	Safety and Environmental	July 2021	January 2022	January 2022	Complete
ACRS Project Overview Meeting	Safety	N/A	February 2022	February 2022	Complete

Enclosure

<b>Milestone</b>	<b>Technical Review Area</b>	<b>Previous Scheduled Completion Date</b>	<b>Updated Scheduled Completion Date</b>	<b>Actual Completion Date</b>	<b>Status</b>
NUREG Publication of Draft Supplemental Environmental Impact Statement	Environmental	August 2021	April 2022	TBD	Pending
ACRS Subcommittee Meetings	Safety	TBD	March – September 2022	TBD	Pending
Draft Safety Evaluation Report Complete	Safety	September 2021	September 2022	TBD	Pending
ACRS Full Committee Meeting	Safety	TBD	September 2022	TBD	Pending
Final Safety Evaluation Report	Safety	October 2021	October 2022	TBD	Pending
NUREG Publication of Final Supplemental Environmental Impact Statement	Environmental	December 2021	October 2022	TBD	Pending