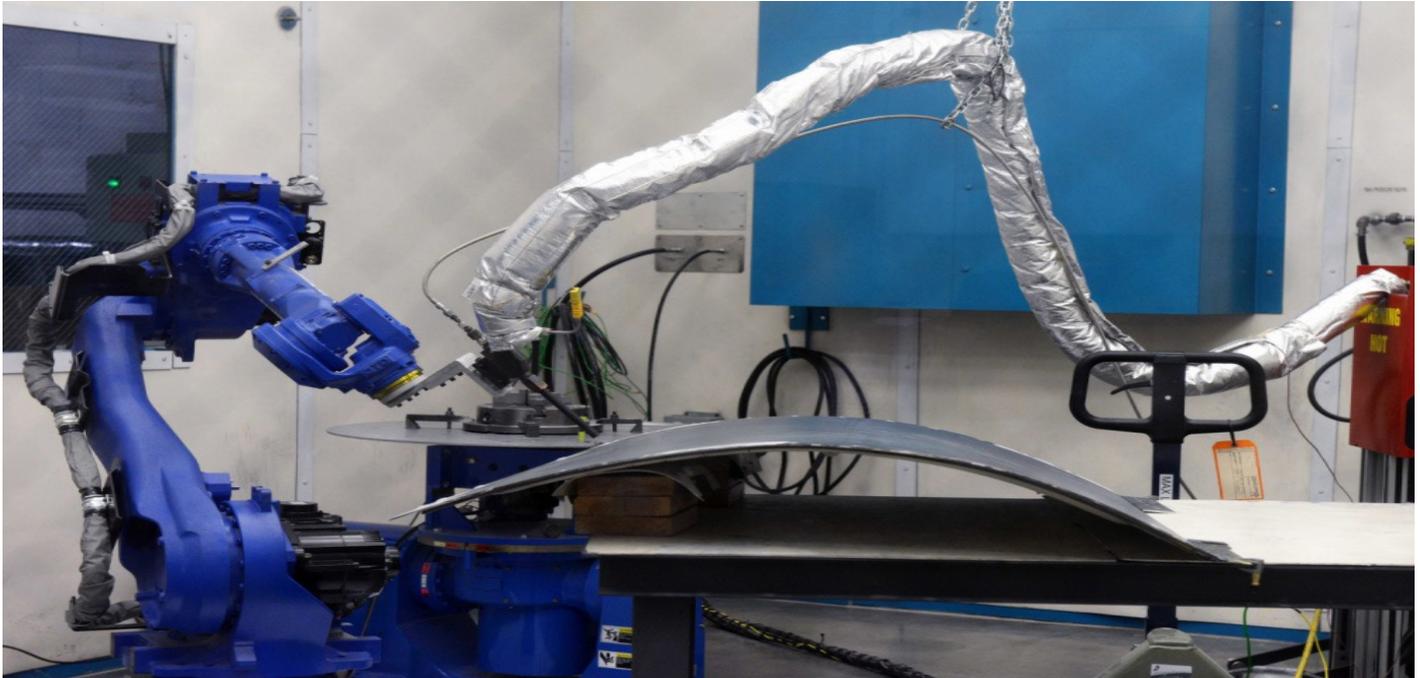


Site Specific Cold Spray Implementation Approval and Building Best Practices for Future Implementations



Cold spray operations with a robotic arm.

PROBLEM

The federally funded DoD Wide Cold Spray Technology Roadmap project identified gaining implementation approval for cold spray operations as a difficult effort with no clear approval process. Without a clear approval process, documented best practices, or other guidance, the proper implementation of cold spray technology is likely to be severely delayed or not occur at all. For example, there are DoD locations that have had cold spray equipment onsite for several years but lack the authorization to implement and operate the equipment.

OBJECTIVE

The objective of this project is to provide the Office of the Secretary of Defense, military services (Air Force, Army, Navy), and other United States Government (USG) locations a process or strategy to gain facility authorization for the implementation of cold spray operations. Facility authorization may include approvals from facility Environment, Safety and Occupational Health staff, onsite and local fire departments, and/or other authorities. Best practices and lessons learned are being documented throughout the period of performance to assist other facilities in gaining authorization for cold spray technology use.



**AMERICA MAKES
TECHNOLOGY
DEVELOPMENT
ROADMAP**

This project aligns to:



TECHNICAL APPROACH

NCDMM is leading the effort, which includes Telgian Engineering & Consulting, to assess and support cold spray implementation approval at up to three (3) USG locations determined by the Government, while capturing lessons learned and best practices. A typical implementation approval process includes a dust hazard analysis, risk assessment, and recommendations to mitigate risks; code and regulation review; execution of risk mitigation activities; and meetings and briefings with stakeholders including approval authorities. Site assessments, data gathering, meetings, and briefings with facility Environment, Safety, and Occupational Health staff, onsite and local fire departments, environmental management agencies, and other authorities associated with approving industrial processes at Department of Defense facilities are being conducted. Lessons learned are being documented to initiate the development of best practices for USG use to streamline the cold spray implementation approval process. This body of knowledge is being continually populated and made available for real-time use by approved USG staff.

PROJECT START DATE

October 29, 2021

EXPECTED END DATE

January 29, 2023

EXPECTED DELIVERABLES

- Final assessment report and presentation

FUNDING

\$315,000 total project budget

(\$315,000 public funding)

PROJECT PARTICIPANTS

Project Principal:

NCDMM

Other Project Participants:

Telgian Engineering & Consulting

Public Participants:

U.S. Department of Defense