

USBR Rust Busters Challenge

Phase 1 Evaluation Rubric

Criteria		Maximum Score	Section scores
General	Strength of approach	10	19
	Additional performance traits	5	
	Clarity and completeness	4	
Performance	Corrosion performance, Strength of data/rationale	20	35
	Durable to impacts and abrasion	6	
	Service life/cost balance	9	
Feasibility	Could be applied to existing HSS in nominal field conditions	13	26
	Likely to be demonstrable after 6mo development effort	13	
Innovation	Novelty of approach	20	20
		100	Total Maximum Score

Scoring Guidelines

Strength of approach	Overall, does the proposed approach make sense? Does it address the goals and objectives of the challenge? Is it an elegant solution or a brute force one?
Additional performance traits	Does proposed approach offer any additional benefits in the context of reducing maintenance costs and improving service life? Examples could include self-healing technology, health monitoring, extremely short application times, or automated application.
Clarity and completeness	Are the thought processes and writing clear? Does the respondent articulate his/her points well? Was submission complete, with all concerns addressed in a meaningful way?
Strength of data/rationale	Is the data compelling? Does it meet or exceed benchmark performance? Does the rationale for performance make sense (esp in the absence of supporting data)?
Durable to impacts and abrasion	Is this technology tough and durable? What is required to ensure the physical components of the technology will provide corrosion protection for the designed service life, i.e., not be damage and not made ineffective? If it is a polymer material, is it inherently non-brittle or a thermoplastic? If is a non-polymer material, what are the wear properties?
Service life/cost balance	How does the service life/cost per sqft balance compare with current materials and approaches? What is your rationale for these cost estimates?
Could be applied to existing HSS in nominal field conditions	Is this process something that likely could be applied in the field? Would it be robust to a variety of field conditions? Would it require any special conditions? Does it use materials or processes that may be adversely regulated in the near future?
Likely to be demonstrable after 6mo development effort	What is the technical maturity of the proposed approach? Is it likely that the respondent will be able to submit the treated test coupons (and device if applicable) after 6 months development work? How realistic is the respondent's timeline for development work?
Novelty of approach	How novel is this approach? Is this an incremental improvement, or something entirely new? Will successful deployment of this technology represent a significant advance in corrosion protection?