

**PROPOSAL FORMAT FOR REQUEST OF AFS RESEARCH FUNDS  
SPONSORING TECHNICAL COMMITTEE/DIVISION FORM**

**Sponsoring Committee:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Division Nos.** \_\_\_\_\_ **Approval Communication Submitted for Proposal**  Yes  No

**Project Title:** \_\_\_\_\_ (*Less than 8 words*)

**Request Number** (Year-Submitting Division-Sequence): \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

- 1. List the Topic Area and the Needs addressed within the AFS Research & Technology Development Plan for the sponsoring Division.** (Refer to the current sponsoring division Research & Technology Development Plan and how the proposed research addresses the needs outlined in that plan – one short paragraph)

**2. Current State of Technology.** (1 page maximum.)

Describe the challenge and how the results from this project will eliminate, mitigate, or more effectively manage this concern. Include bibliography of applicable references to document this challenge.

**3. Objective(s) of Project, Deliverables, and Milestones.** (1 page maximum)

Succinctly describe metrics for principal tasks that defines completion of an intermediate objective. For example, design a testing protocol or develop a design of experiment compatible with a limited number of trial heats. Another example, develop a test casting suitable for the phenomenon to be studied.

**Example:**

Objective - Develop a best practice guide to monitor and test for clean metal after pouring.

<b>TASK &amp; DURATION (MOS)</b>	<b>DELIVERABLE OR MILESTONE</b>
Task 1 – Test Casting Definition (1.5)	Conceptual design of a test casting converted into a detailed digital format suitable for production of tooling
Task 2 – Lab Validation of Test Casting (4.0)	Completion of laboratory assessment of test casting tooling prior to foundry trials
Task 3 – Field Trials & Information Transfer (6.0)	Completion of foundry trials with all documentation to principal investigator
Task 4 – Field Sample Characterization (6.0)	Completion of foundry trial sample evaluation test results
Task 5 – Best Practice Guide Preparation (1.5)	Proposed draft practice based on all foundry trial results prepared & reviewed by steering committee
Task 6 – Reporting (1.0)	<ul style="list-style-type: none"> <li>⊕ Final report is a Casting Congress paper</li> <li>⊕ PowerPoint™ lecture for inclusion in CMI class Number X-UVW</li> <li>⊕ 2-page PowerPoint file for distribution as a poster to AFS Chapter meetings</li> </ul>

**4. Technical Innovation, Approach, and Procedures.** (6 pages maximum)

- ❖ Identify what is unique in the proposed study which has not been previously explored.
- ❖ This narrative is an armchair tour for a reviewer to understand the process the project follows to meet its objective. For each task tabulated in Section 2, succinctly outline key steps. A flow diagram can be used to explain the interrelationships among various tasks, or activities within tasks, or team members. Define the exit criteria for each task that results in a deliverable or a milestone.
- ❖ Highlight procedures that will be followed along with decision points, metrics to gauge progress, and decision criteria.
- ❖ Identify each team member (principal investigator, industry sponsors, program manager, steering committee, etc.) responsibilities.
- ❖ Identify the duration of the project. The time overlap among the various tasks can be illustrated by a Gantt chart, or equivalent.
- ❖ If additional work, Phase 2, might be required, it can be included but funding request and consideration for approval will only be for Phase 1.

5. **Industry Cost Share/In-Kind.** *(Tabulate industry support via cost share/in-kind, AFS funding, and total cost requested for each task. Industry cost share/in-kind must represent necessary elements for project task execution. Steering Committee meetings do not qualify as cost share.)*

<b>Task Description</b>	<b>AFS Funds</b>	<b>Cost Share</b>	<b>Total</b>
Task 1			
Task 2			
Etc.			
<b>Total Funds</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

6. **Justification and Economic Significance to Industry** *(1/2 page maximum)*

*Utilize the bibliography information in Section 2, Current State of Technology, to justify significance to the industry. Foundry demographics are listed on the AFS web site, <http://www.afsinc.org> under “Foundry Trends”.*

7. **Technology Deployment Plan.** *(1 page maximum)*

- ❖ *Proposals will be judged on the efficacy of the technology deployment plan. The goal of all research is to rapidly adopt the results to the foundry floor. Discussion of how the project will help a foundry improve its competitiveness is **mandatory**, e.g., reduced scrap, reduced lead-time, increased equipment utilization, increased capacity with existing equipment, etc. One means to reach operators is to incorporate research results into workshops and the AFS Institute courses. This and other forms of delivery (electronic databases, best practice guidelines, Modern Casting magazine articles, International Journal of Metalcasting submission, etc.) will reach a much broader audience than a single presentation at a Casting Congress that is published in AFS Transactions, or a limited distribution of a scientific final report.*
- ❖ *AFS has implemented a webinar series highlighting the latest AFS funded research in the metalcasting industry. Upon completion, presentation of key findings from project in a scheduled webinar is required.*
- ❖ *For longer-range programs, there must be demonstrated a clear vision how the proposed research will ultimately be delivered to the industry.*
- ❖ *The committee is only limited by its imagination on how to convert project scientific findings into practical engineering applications.*

8. **Research Agency Compatibility and Unique Qualifications of the Principal Investigator.** *(2 pages maximum)*

- ❖ *Justify the selection of the principal investigator, or program manager, based on relevant past experience and accomplishments within the project scope. Specific technical accomplishments that are generally recognized within the technical community are a strong argument. Specific technical accomplishments that are used by industry are a stronger argument. Provide the rationale why the steering committee chose a novice investigator. List only recent project relevant publications, not the lifetime publications of a principal investigator.*
- ❖ *Identify the unique institutional facilities and, or, equipment at the research agency that*

*makes this project technically feasible while being economically attractive.*

**9. Steering Committee**

- ❖ *Name 3 to 5 individuals and their companies. Letter of commitment from all steering committee members confirms the individual and the company commitment to actively participate in the project. Alternatively, the AFS R&D Project Committee Tracking & Division Approval form provided on the last page of this document is intended to meet both requirements.*
- ❖ *Identify the Steering Committee Chair, who has the responsibility to ensure that the Quarterly Status Report is submitted to the Research Board. This one-page executive report will list key accomplishments in the last quarter, plans for the coming quarter, and identify any programmatic concerns (e.g., project delays due to deferred foundry trials). Report (or email) will be submitted to the AFS V.P. Technical Services and are due on the first Monday of February, May, August, and November.*
- ❖ *These reports will be compiled and sent to the Research Board for their review and potential follow-up project update presentation at the next Research Board meeting.*

**10. Sustainability/Environmental Impact. (1/4 page maximum)**

*How will this research positively, or negatively, affect the foundry industry?*

<b>To be completed by Research Board.</b>		
<b>Project Evaluation Criteria</b>	<b>Paragraph</b>	<b>Rating</b>
Adherence to Prioritized List of Division Research Plan	1	
Applicability of Results to the Industry	1, 2, 6	
Length and Cost of Program	3, 4, 5	
Economic Significance to the Industry	6	
Technical Approach	4	
Qualifications of Personnel & Capabilities of Facilities	8	
Management Plan	3, 7, 9	
Potential of Environmental Impact on Industry	10	

Proposals must be submitted to AFS V.P. Technical Services at least one (1) week prior to the quarterly Research Board meeting. Submit to:  
V.P. Technical Services  
AMERICAN FOUNDRY SOCIETY  
1695 NORTH PENNY LANE  
SCHAUMBURG IL 60173  
Phone: 847/824-0181 ▲ Fax: 847/824-7848▲ Email: tprucha@afsinc.org

**AFS R&D PROJECT COMMITTEE TRACKING & DIVISION APPROVAL FORM**

Project Title:		
Principal Investigator:	Affiliation:	
AFS Division Request No.:	Request Date:	AFS Committee:

ACTION	INITIATOR	DATE	NAME SIGNATURE (or email notice)
ASSIGN AD HOC REVIEW COMMITTEE	AFS COMMITTEE CHAIR		
COMMITTEE DISPOSITION	AD HOC CHAIR (attach minutes)		
If approved, a monitoring steering committee must be identified below. Division approval is indicated by endorsement in the signature block below. If not approved, notify the Division Chair (copy AFS staff liaison & VP Tech serv.) for communication of this decision to the applicant.			
DIVISION APPROVAL/REJECTION	DIVISION CHAIR		
DISTRIBUTE PROPOSAL TO RESEARCH BOARD & ASSIGN MEETING DATE	AFS V.P. TECHNICAL SERVICE		
ADVISE PRESENTER OF RESEARCH BOARD REVIEW DATE	AFS V.P. TECHNICAL SERVICES		

**MONITORING STEERING COMMITTEE ASSIGNMENT (minimum of two)**

<b>CHAIR</b>	Name	Signature
	Affiliation	Date
	Tel	Email
<b>MEMBER</b>	Name	Signature
	Affiliation	Date
	Tel	Email
<b>MEMBER</b>	Name	Signature
	Affiliation	Date
	Tel	Email
<b>MEMBER</b>	Name	Signature
	Affiliation	Date
	Tel	Email
<b>MEMBER</b>	Name	Signature
	Affiliation	Date
	Tel	Email
<b>DIVISION APPROVAL</b>	Name	Signature
	Affiliation	Date
	Tel	Email
<b>RESEARCH BOARD APPROVAL</b>	Name	Signature
	Affiliation	Date
	Tel	Email