THE EDISON MATERIALS TECHNOLOGY CENTER

Operating Procedure No. OP-03

EMTEC CANDIDATE CORE TECHNOLOGY (CCT) PROJECTS

1.0 INTRODUCTION

Core Technology (CT) projects are defined as technology development projects which meet the EMTEC goals of accelerating innovative materials and processing technologies to the market. Candidate Core Technology (CCT) projects are proposals, sometimes referred to as "project descriptions", submitted to EMTEC for evaluation and for consideration of financial sponsorship by the Center.

This Operating Procedure supersedes EMTEC OP-03, dated November 4, 1994. It provides for the planning and conduct of an efficient and effective process for the generation of CCT projects, and the evolution of these candidates to the status of approved and funded CT projects

2.0 PURPOSE

This Operating Procedure defines the policies and procedures to be followed in the planning, review, prioritization, approval and funding of Candidate Core Technology (CCT) Projects. The format, requirements and guidelines, budget work sheets, rating instructions, and sample scoring form for CCT proposals are included as Appendices. This operating procedure also covers the process cycle (schedule) associated with such projects. It incorporates, by reference, the requirements and procedures defined in Operating Procedure No. OP-04 [EMTEC Core Technology (CT) Projects].

3.0 ELIGIBILITY

To be eligible for consideration as a CCT project, the project description must be submitted by a current EMTEC member (Industrial, Academic, Government Lab, or Staff). The proposed CCT project must be aligned with the overall goals, objectives, and charter of EMTEC. It should also be aligned with current EMTEC technology markets and Ohio initiatives, including the Third Frontier.

4.0 CCT PROJECT GENERATION CYCLE

The CCT cycle has several objectives, as follow:

(1) To provide a mechanism for industry input of problem definitions and project ideas to CCT generation.

(2) To provide a guideline for project proposers in developing their proposal preparation schedules.

(3) To provide for team and cost proposal development assistance to proposers by EMTEC.

(4) To ensure that proposal submittal, evaluation, rating, and selection are completed as appropriate for budgeting by the EMTEC President, and approval by the Board of Governors.

CCT projects are accepted into the cycle once each year, or as appropriate. This cycle generates projects which have been reviewed and prioritized by the Technical Steering Committee (TSC), recommended by EMTEC staff with consideration of EMTEC technology markets, commercialization and revenue sharing, and Third Frontier alignment, and budgeted by the EMTEC President in advance of the next fiscal year's Annual Plan, which is then reviewed and approved by the Board of Governors. The cycle permits efficient management of resources, and an optimal Annual Plan for Board approval.

5.0 DETAILED PROCEDURES

This section incorporates the detailed Operating Procedures relating to the candidate projects. It does not address on-going CT projects, or the life cycle of such projects, as these operations are addressed in OP-04 [EMTEC Core Technology (CT) Projects].

5.1 CCT Reviews

A special TSC meeting will be conducted once each year, or as appropriate, for review, evaluation, and prioritization of CCT projects. This Operating Procedure addresses the process of generating and reviewing CCT proposals, conducting that dedicated TSC meeting, allocation of resources, and approval by the Board of Governors.

5.2 Schedule and Timing Considerations

The schedule for the CCT cycle is shown in Table OP-03-1. Topics or ideas for projects, in the form of 1-5 page White Papers, are accepted at any time by EMTEC. However, the annual cycle begins in earnest in September with the solicitation of proposals describing prospective CCT projects. The staff reviews any White Papers received for compliance with the EMTEC mission. Qualified White Papers are distributed to the TSC during October and November for purposes of team building. CCT proposals are invited in mid-November and accepted from any eligible party (see Paragraph 3.0) during the period through the final business day of January, which is the only firm deadline in the process.

Requirements and general guidelines for proposed CCT projects are presented in APPENDIX A-03. The format for proposals is presented in APPENDIX B-03. Cost estimating forms are included for use, if needed, in preparing the proposed budget. Guidelines for project phasing and costs are provided during each CCT cycle, in the request for proposals. An example is shown in APPENDIX C-03.

Between initial draft proposal receipt and final proposal submission, the EMTEC staff will assist proposers in making proposals compliant with EMTEC procedures and requirements, forming project teams, and cost planning. Planning meetings for qualified CCTs are held between September and November.

Final proposals are accepted through the final business day of January. By the end of February, the proposals are distributed to the TSC for review.

In April, a special TSC meeting is dedicated to the review, evaluation, and prioritization of the CCT projects. Approximately 25 minutes is allotted to each presenter to describe and justify each project. Time limitations on individual project presentations are strictly enforced. To assure full participation of the TSC membership, especially industry members, the agenda does not exceed one day.

To assure that the TSC has ample time to prepare for the CCT projects reviews, the EMTEC staff provides each TSC member with a set of CCT project descriptions approximately four weeks before the CCT review meeting. In addition, the staff provides rating instructions and evaluation forms concurrent with the project descriptions. TSC members are requested to submit their completed rating forms at the conclusion of the CCT review meeting. (CCT rating instructions, criteria, and a sample TSC rating form are presented in APPENDIX D-03.)

5.3 Resource Allocation

Following the CCT review meeting, the EMTEC staff analyzes the data provided by the TSC members, considers relative impacts on EMTEC technology markets, alignment with the Third Frontier initiative, and revenue sharing, rank orders all of the projects based upon their total scores, and provides the results to the EMTEC President. Resources are not automatically allocated to the extent of their availability. In general, EMTEC allocates resources to a subset of those candidate projects, which receive the highest composite ratings from the TSC and EMTEC staff. CT management staff negotiates with the CCT proposers to ensure that all selection criteria are satisfactorily met, and the budget is finalized as a pre-requisite to authorization of a project.

5.4 Approval and Initiation of Projects

The EMTEC President submits the CCTs for which resources have been allocated and the planned schedule for their initiation to the Board of Governors for approval during the appropriate meeting of the Board. Upon Board approval, EMTEC provides authorization of new project starts and sees that kick-off meetings for resultant core technology projects are held.

6.0 CLOSURE

The intention of this Operating Procedure is to respond to member needs and concerns. We encourage each member to review this Operating Procedure with the goal of improving, clarifying, simplifying, and generally strengthening its contents and utility.

Comments, which will improve this document, may be submitted in writing to the Vice President of Technology, EMTEC, 3155 Research Blvd., Kettering, OH 45420.

Table OP-03-1

FY08 CCT SCHEDULE *

Activity	Time Period
White Papers on topic ideas/problems accepted	At any time
Proposals invited from Members	September 2006
EMTEC hosts planning meetings for CCT	October – November 2006
White Papers distributed to TSC	October-November, 2006
EMTEC receives, scans, screens draft proposals and works with submitters in: - Team building - Team commitments - Cost planning	October-November, 2006
Final proposal preparation and submission	**By February 28, 2007**
Proposal distribution to TSC	March 2007
TSC review of proposals	March 2007
TSC meeting to rank projects	April 2007
EMTEC President resource projections	May 2007
Annual Plan preparation	May-June, 2007
Approval by Board of Governors	May-June, 2007
New CT projects started	July 2007 – September 2007

***** **The only firm deadline is proposal due date on February 28, 2007!**

APPENDIX A-03

REQUIREMENTS AND GENERAL GUIDELINES FOR PROPOSED CCT PROJECTS

1.0 REQUIREMENTS

1.1 The proposal submitter must be an eligible party (reference paragraph 3.0).

1.2 Each Phase I CCT project must have a participant cost-share contribution of at least 50%. The requirement for Phase II is 75%. Higher ratios will be viewed more favorably for EMTEC support when scoring "Resource Level".

1.3 The project team must consist of organizations, which will: (1) develop the technology (Technology Development Team); and (2) deploy or commercialize the technology (Technology Commercialization Team).

1.4 Each project team must have a project leader (Industrial Task Leader) who is employed by an EMTEC industrial member firm.

1.5 Submitter should complete a thorough background literature search. Every CCT project proposal must include not only the results of the literature search, but also a vendor/company or market search to show what is the state-of-the-art, commercially available technology/material/process versus what is being proposed.

2.0 GENERAL GUIDELINES

2.1 Each CCT team should have a predominant involvement of EMTEC member organizations.

2.2 Each CCT project team member (participant) should have active participation and a significant level of cost-share.

2.3 The technology focus should be on the Third Frontier categories pursued by EMTEC (advanced materials and processes, power and propulsion [including fuel cells], and sensors and controls) with pervasive economic impact (i.e., multiple or diverse applications in proven markets), leading to commercialization by Ohio companies.

2.4 The project Principal Investigator(s) and Industrial Task Leader(s) should be: (1) aware of the commercially available, state-of-the-art technology in their project area; (2) able to make comparisons to show that their product/process or technology development idea(s) are economical/feasible/better, and (3) able to demonstrate a clear pathway to commercialize the technology, preferably in Ohio.

2.5 EMTEC does not favor the purchase of equipment with project funds, but seeks to make maximum use of existing equipment within the membership. If unique equipment must be acquired under a project, either (1) other than EMTEC funds should be used wherever possible, or (2) if EMTEC funds must be used, they must be budgeted, justified, and approved by EMTEC. Any such purchased equipment becomes EMTEC property to be disposed of by EMTEC at the end of the project.

2.6 Matchable* cost share contributions are defined as follows:

(1) Industry cash (to EMTEC for a project-preferred approach, or direct to the performing organization as a second-best option).

(2) Federal cash.

(3) In-kind contributions; i.e., tabulated "standard" estimated costs for direct labor, materials and supplies provided, equipment use, travel, technical assistance, computer software programs, testing, analysis, etc. These in-kind contributions may come from any source except the State of Ohio.

* Note: Funds provided by the State of Ohio are non-matchable resources but do contribute to the success of projects. These funds should not be ignored when formulating project budgets.

APPENDIX B-03

FORMAT FOR PROPOSALS OF
CANDIDATE CORE TECHNOLOGY (CCT) PROJECTS

1. PROJECT NUMBER:
(Assigned by EMTEC)

2. PROJECT TITLE:

3. PROPOSING ORGANIZATION:

4. PRINCIPAL INVESTIGATOR:
(Person, Title & Organization)

5. TECHNOLOGY DEVELOPMENT TEAM:
(List organization)

6. TECHNOLOGY COMM. TEAM:
(List organizations)

7. INDUSTRIAL TASK LEADER:
(Person, Title & Organization)

8. PROJECT STATUS

State whether Phase I, Phase II, or Phase III is proposed. Phase I is to evaluate the technical merit and feasibility of an idea. Phase II is to expand on the results and further pursue the development of Phase I, including commercialization of the technology. Phase III is to bridge the technology gap between Phase II technology development and commercialization. For Phase II or Phase III proposals, the Phase I Core Technology project number (e.g., CT-37) must be identified.

9. PROJECT OBJECTIVE:

Succinctly state the project objective, including its relationship to Third Frontier technology areas (see "Evaluation Criteria" on p. 16). The objective must be aligned with the overall goals, objectives, charter, and mission of EMTEC.

The EMTEC mission is to enhance industrial competitiveness and provide wealth creation for our members by accelerating the development, deployment, and commercialization of materials technologies.

10. APPROACH AND TASKS:

Describe the elements of the technical approach and methodology; analysis, experiments, etc.

11. PROJECT SIGNIFICANCE TO EMTEC GOALS:

Briefly describe the project's principal potential contribution to the overall goals of EMTEC and the Edison Center program; i.e., how would the technology improve/enhance Ohio and U.S. industry (efficiency, cost effectiveness, competitive posture, etc.), or how does the technology impact the Edison goal of economic development through technology commercialization, and how does the technology align with the Ohio Third Frontier initiative. Correlate the project to one or more of the following specific EMTEC goals:

I. Materials

A. Improve the methods by which source materials are inspected and tested upon receipt.

B. Improve the performance of the materials in their intended usage.

C. Define/develop alternative materials to improve selected performance measures anticipated, but beyond the capabilities of those currently in use.

II. Materials Processing

A. Improve the methods by which the quality of processed materials is determined.

B. Improve the current materials processing operations relative to quality, cost or responsiveness.

C. Define/develop alternative materials processing methods and/or operations.

12. BENEFITS FROM PROJECT:

Briefly describe the economic benefits to Ohio companies expected as a result of this project; i.e. increased sales, reduced costs, and/or new investments by and in Ohio companies creation of jobs in Ohio.

13. ALIGNMENT WITH THIRD FRONTIER: (see “Evaluation Criteria” on p. 16)

14. COMMERCIALIZATION PLAN

For a Phase I proposal, provide a conceptual business plan for how the resultant technology will be introduced into the manufacture of commercial products. Include discussion of the customer base, the type and size of the market, the anticipated sales or savings volumes, and the market penetration and timing thereof.

15. EMTEC REINVESTMENT

Provide a description of the method by which the project team will reinvest gains from the CT project participation in the EMTEC technology program. This should include a pledge in the form of new member fees, cash contributions to the project, and the sharing of revenues resulting from the commercialization of project results. Detailed procedures and policy for this technology revenue sharing are available in EMTEC Operating Procedure Nos. OP-10 and OP-10a, respectively.

16. DELIVERABLES:

Provide a brief narrative description of each planned deliverable and delivery date schedule, in Months after Start (MAS); e.g., a final Technical Report (70 copies required); quarterly status reports (required - see Operating Procedure 04 for CT projects); a hardware prototype demonstration; a software program; an operator's manual; etc.; as applicable.

17. COST AND SCHEDULE:

Provide the following data:

Duration:	Estimated calendar months to complete; e.g., 12 months.
Milestones:	Gantt Chart preferred.
Cost:	Estimated total cost ($).
	Industry cash/in-kind contribution ($).
	EMTEC cost ($), with proposed budget detail (form for cost estimating is provided below).

18. COMMITMENT LETTERS:

Provide letters of commitment from each project participant for cash and other in-kind commitments. Letters should describe both the nature of the resources and their estimated dollar value, on a project year basis.

19. REFERENCES:

List project team qualifications, previous projects, and publications pertinent to the proposed technical effort, as an Appendix to the proposal.

20. DOCUMENT GUIDELINES

I. Page limit - 20 pages, excluding letters-of-commitment and Appendices.

II. Use of color - strongly discouraged. If used, submitter is responsible for furnishing necessary number of CCT copies (at least 150) for distribution to Technical Steering Committee, Staff Reviewers, etc.

III. Page and print format - 8.5 inch by 11-inch page with 1-inch margins; pages numbered; font size 11-12; English language.

PROPOSED BUDGET

DIRECT LABOR

	Name	Person-Hours

a. Engineers, Scientists, Etc.

Principal Investigator(s)

_____	_____
_____	_____
_____	_____

Other Engrs. & Scientists

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Total Engineers, Scientists, Etc. $ _____

b. Technical Support Personnel

Technicians

_____	_____
_____	_____

Graduate Students

_____	_____
_____	_____
_____	_____
_____	_____

Undergraduate Students

_____	_____
_____	_____
_____	_____

Office Personnel

_____	_____
_____	_____

Total Technical Support Personnel $ _____

Total Direct Labor $ _____

LABOR OVERHEAD

	Rate, %	x	Base	=	Cost
General Overhead	_____		_____		_____
_____ Overhead	_____		_____		_____

(define) Total Labor Overhead $ _____

DIRECT MATERIAL

a. Materials, Supplies, and Miscellaneous

Item Description	Quantity	x Unit Cost	= Cost
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Total $ _____

b. Subcontracted Items

Item Description	Vendor	Cost
_____	_____	_____
_____	_____	_____
_____	_____	_____

Total $ _____

Total Direct Material $ _____

OTHER DIRECT COSTS

a. Use of Equipment

Item Description	Rate	x #Units =	Cost
_____	_____	_____	_____
_____	_____	_____	_____

Total $ _____

b. Service Center/Special Facility Burdens

Area	Rate	x	#Units	=	Cost
_____	_____		_____		_____
_____	_____		_____		_____
_____	_____		_____		_____
_____	_____		_____		_____

Total $ _____

c. Duplicating & Photographic Service

Item Description	Cost
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Total $ _____

Total Other Direct Costs $ _____

TRAVEL

Destination	#Trips	#Persons	#Person-Days	Cost
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Total Travel $ _____

CONSULTANTS

Name	#Hrs.	x	Rate	=	Fee	Travel Cost	Total Item Cost
_____	_____		_____		_____	_____	_____
_____	_____		_____		_____	_____	_____
_____	_____		_____		_____	_____	_____

Total Consultants Cost $ _____

TOTAL ESTIMATED COST $ _____

APPENDIX C-03

GUIDELINES FOR FY05 CCT PROPOSALS

1. Guidelines for FY05 CCT project phasing and costs are shown in the table below. Phase I is to evaluate the technical merit and feasibility of an idea or concept. Phase II is to expand on and further pursue the development of Phase I, including commercialization of the technology.

2. Phase I proposals should include descriptions and costing for Phase II, if identifiable. Only Phase I will be approvable initially; however, Phase II approval will not require subsequent competition with Phase I proposals. Phase II approval will require an approved Commercialization Plan and a mutually signed Revenue Sharing Agreement with EMTEC. Award of a Phase I project is not a guarantee of a Phase II award.

Guideline	Phase I	Phase II
Objective	Evaluate Feasibility and Technical Merit	Further Development and Commercialization of the Technology
Risk	Medium – High	Low
Maximum Quarterly Expenditure	$25,000	$25,000
Maximum Total Cost	$100,000	$250,000
Minimum Ratio of Cost Share to EMTEC Funds	1:1	3:1
Maximum Duration, yrs	1.5	3.0

APPENDIX D-03

CANDIDATE CORE TECHNOLOGY (CCT) PROJECTS
RATING INSTRUCTIONS AND RATING FORM

I. INTRODUCTION

Candidate Core Technology (CCT) projects are nominated by the EMTEC membership for possible funding in the subsequent fiscal year. Following a prescreening activity by the EMTEC staff, the remaining projects are presented to the Technical Steering Committee (TSC) for prioritization. The rating system described below has been developed to assist the TSC in ranking the candidates for subsequent allocation of resources according to TSC priorities. It incorporates updates which reflect the necessity to decrease the future dependency of the Core Technology (CT) program on State funding, and the resultant need to develop alternate funding sources through Core Technology Commercialization and through EMTEC Reinvestment by project leaders, participants, and commercialization organizations.

II. RATING CATEGORIES

Evaluation criteria in the form of six rating categories are defined as follows: (1) ***Project Definition***, (2) ***Relevance to Industry Needs***, (3) ***Resource Level***, (4) ***Alignment with the Third Frontier***, (5) ***Commercialization Plan***, and (6) ***EMTEC Reinvestment.*** Each of these categories is described briefly in the paragraphs printed on the back side of the CANDIDATE CORE TECHNOLOGY (CCT) RATING SHEET. An example rating sheet is included in this appendix.

III. THE RATING SYSTEM

Each TSC representative is provided a set of rating sheets and CCT project descriptions well ahead of the appropriate TSC meeting. TSC representatives should review and rate the CCT projects prior to the formal TSC meeting. During the TSC meeting, each representative will have the opportunity to adjust any ratings in real time, based on the oral presentations and discussions. The rating sheets will be collected at the conclusion of the meeting. A five point rating system will be used for each category. The point range is from 1 (lowest) to 5 (highest), according to the following guidelines:

Point Value	Rating
1	Well Below Average
2	Below Average
3	Average
4	Above Average
5	Well Above Average

The TSC representative will record his/her assessment of each CCT project in the appropriate category columns of the rating sheet. The total of the six categories scores will provide him/her with a basis for assigning his /her overall ratings.

IV. OVERALL RATING

The six rating criteria defined on the rating sheet reverse side are equally weighted. The sum of the first six columns is entered in Column 7 (Total Score). The final step is to assign the TSC representatives own prioritized ranking of CCT projects from first (1) to last (the number of CCTs in the competition). This permits the TSC representative to break any ties, and to apply his/her personal evaluation of the project as a whole.

V. RATING PROCEDURES

The EMTEC staff will provide rating sheets to each TSC representative. Only one rating sheet will be permitted per organization. The TSC representatives will update and complete the rating sheets during each presentation. At the conclusion of the TSC review, the EMTEC staff will collect the rating sheets. Those TSC representatives wishing to consult further with their organizations, and those unable to attend the TSC meeting for CCT review, will be permitted to submit their rating sheets within two (2) weeks after the meeting.

VI. RATING PROCESS CONSIDERATIONS

There are obviously pros and cons to any numerical rating process. The process described herein insures that all TSC members have the opportunity to provide inputs, that these inputs are considered equally, and that the member is prompted to evaluate the candidate projects in terms of the key measures of merit importance to the project value. We encourage member written comments regarding improvement of this procedure.

EVALUATION CRITERIA FOR CANDIDATE CORE TECHNOLOGY (CCT) PROJECTS FOR FY 06

March 21, 2005

Evaluation criteria in the form of six rating categories are defined, as follows: (1) Project Definition, (2) Relevance to Industry Needs, (3) Resource Level, (4) Return on Alignment with the Ohio Third Frontier Investment, (5) Commercialization Plan, and (6) EMTEC Reinvestment. Each of these categories is briefly described in the following paragraphs.

1. Project Definition

Each project is presented in the approved EMTEC format, which includes the project number and title; project objective, technical and/or management approach; project significance to EMTEC goals; deliverables; and estimated cost and schedule. The rating of this factor involves how clearly the project is defined. The principal criterion is whether the project description is clearly understood, tasks are identified and assigned, and the approach is likely to achieve the desired objective.

2. Relevance to Industry Needs

No project is started by EMTEC which is not traceable to industry and/or government needs. For Core Technology projects, there should be a wide base of industry and/or government member support, as well as significant directed resources support to such projects, as documented by letters of resource commitment by the industry and/or government members. The strength or weakness of this commitment is taken as a measure of industry backing. The principal criteria for this rating category are the extent and value of industry member support to the project. Lack of such support is fatal to a CCT project.

3. Resource Level

This factor involves assessment of whether the appropriate balance of resources has been identified to assure success of the project, without extravagance. It includes the proposed personnel, facilities, equipment, and funding levels. The fundamental question is this: Are the proposed resources properly selected (quality and quantity) to accomplish the project as described?

4. <u>Alignment with the Third Frontier</u>

EMTEC has selected three categories of Ohio's Third Frontier initiative for concentration of EMTEC resources and efforts, including advanced materials and processes, power and propulsion (including fuel cells), and sensors and controls. Projects, which align well with the Third Frontier, will be preferred for EMTEC selection.

5. Commercialization Plan

No Core Technology project will be authorized and conducted unless a plan is included for how the resultant materials or manufacturing technology will be introduced into the marketplace. The Technology Commercialization Team will prepare this plan conceptually for Phase I proposals. By the completion of Phase I, a detailed Commercialization Plan should be developed and submitted as a required deliverable in order for a Phase II proposal/plan to be considered. A Commercialization Partner will be required for authorization of Phase II to occur. For CCTs, reasonableness of the conceptual plan is the issue.

6. EMTEC Reinvestment

The Core Technology (CT) program must become less dependent on State funding to ensure its future. CT proposers are asked to include a pledge by the project team to reinvest gains from CT project participation in the form of new member fees, cash contributions, and sharing of revenues from the

commercialization of the resultant technology. The pledge will be a factor in project selection.

EXAMPLE: FY 200X CANDIDATE CORE TECHNOLOGY (CCT) RATING SHEET*

RATER: _____ ORGANIZATION: _____

CCT No.	TITLE	Project Definition	Relevance to Industry Needs	Resource Level	Alignment with Third Frontier	Commercial-ization Plan	EMTEC Reinvest-ment	Total Score	Rank Order 1-n
CCT-02-1	Electron Beam Processing of Liquid Crystal Polymer Matrix Nanocomposites								
CCT-02-2	Development of an As-Cast Martensitic Alloy for Rapid Prototype Tooling and Near Net Mold Production								
CCT-02-3	Low Cost, High Performance, Superconductive Wire for High Field and Cryogen Free Applications								
CCT-02-4	Superfinishing Process for Die Cast Tooling Component Parts								
CCT-02-5	Simulation and Optimization of Quenching/Cooling of Extrusion Profile								
CCT-02-6	Nano Structured Magnetic Materials for Motors and Generator Applications to Reduce Size and Increase Efficiency								
CCT-02-7	Development and Demonstration of an Electric Quickcore Making Machine								
CCT-02-8	Development of Low Cost MgB_2 Superconductor								
CCT-02-9	Development of Materials and Surface Treatments/Coatings for Improving Efficiency of BOF&EAF Hoods								

*See previous page for detail on Evaluation Criteria.

COMMENTS (Attach additional sheets as required):

Rating Scale: **5**-Well Above Average **4**-Above Average **3**-Average **2**-Below Average **1**-Well Below Average