RESEARCH CONTRACT - BASIC AGREEMENT

This RESEARCH CONTRACT is made between the Colorado School of Mines
(CSM), Golden, Colorado, for the benefit of its Steel Research Center and
(Sponsor),
1. Term. The term of this contract will begin on and
end on Commencing with 01 October 1984, each twelve (12)
month period is assigned an appropriate cardinal number and is known as
"Project Year". A project year also corresponds to a fiscal year.
2. Research. CSM will carry out a program for conducting coordinated
interdisciplinary research and development in the processing and
characterization of steel.

- 3. <u>General Terms and Conditions</u>. Both parties agree to the General Terms and Conditions which appear as Appendix A of this contract.
- 4. Research Fee. In consideration for the research work to be performed, the Sponsor agrees to pay according to the following schedule.

Schedule of Consideration

Project Year	Fiscal Year	Annual Fee
01	1984-1985	\$30,000
02	1985-1986	\$30,000
03	1986-1987	\$32,500
04	1987-1988	\$32,500
05	1988-1989	\$35,000
06	1989-1990	\$35,000

The annual fee will be prorated on a monthly basis in the event a sponsor does not join at the start of a project year. However, nothing in this clause shall be construed to imply that a sponsor can subscribe for less than a

twelve month period. Inasmuch as the number of sponsors participating in the Steel Research Center may vary upward from a minimum of five (5), CSM's level of effort in regard to the magnitude and nature of research will be in proportion to the number of sponsors.

- 5. <u>Payment Schedule</u>. The Sponsor agrees to pay upon execution of this agreement. The research fee for successive project years is due upon respective anniversary dates.
- 6. Amendments. Changes in this Basic Agreement and the General Terms and Conditions may only be accomplished in writing upon the mutual agreement of both parties.
- 7. Governing Law. This contract shall be construed in accordance with and governed by the laws of the State of Colorado and the United States of America.
- 8. Copies. Two (2) copies of this contract shall be signed by each party, one to be delivered to CSM and one to the Sponsor.

IN WITNESS WHEREOF, the parties hereto have executed this contract on the day and year specified below.

Colorado School of Mines

Ву	Ву
Signature of Authorized Official	Signature of Authorized Official
Typed Name	Typed Name
Title	Title
Date	Date

APPENDIX A. STEEL RESEARCH CENTER: GENERAL TERMS AND CONDITIONS

I. SPONSOR REPRESENTATIVE

The parties acknowledge that CSM anticipates entering into an agreement similar to this contract with at least four (4) other entities. The Sponsor and such entities will each designate sponsor representatives to consult with Steel Research Center personnel, such consultation to occur as those involved may mutually agree. In any event, the Sponsor shall be entitled to a reasonable number of observers at the annual technical meetings (Clause VII).

II. RESEARCH

CSM will carry out a program for conducting coordinated interdisciplinary research and development projects in the processing and characterization of steel. This program will be performed at the direction of the Steel Research Center Advisory Board (Clause IV).

III. INDEPENDENT CONTRACTOR

CSM will conduct the research as an independent contractor.

IV. ADVISORY BOARD

Key to the operation of the Steel Research Center is the formation of the Advisory Board. The Advisory Board will be composed of a representative from each of the sponsors of the Steel Research Center, the Head of the Metallurgical Engineering Department at CSM, the Director of the Steel Research Center, and five CSM faculty members.

The Advisory Board will establish operating policy, recommend an annual budget, and recommend research programs based on proposals submitted by CSM staff and research suggestions from technical representatives of member sponsors. The full Advisory Board will meet once a year to make decisions regarding the research and operation. The day-to-day operation of the Steel Research Center will be carried out by the Director and the CSM members of the Advisory Board, meeting as required.

V. DIRECTOR OF STEEL RESEARCH CENTER

A Director of the Steel Research Center will be designated by CSM.

VI. RESEARCH PROGRAMS

Each research program will be directed by one or more principal investigators. The various graduate students, as required by the CSM Graduate

School, will be guided by a committee consisting of a faculty advisor expert on the topic of the student's thesis and at least two other faculty members. Sponsor participants of the Steel Research Center can also serve as members on the graduate student committees upon the approval of the CSM Graduate School.

The principal investigators will coordinate the various graduate student subprograms in the major programs, will facilitate interactions with the various sponsors' technical personnel, and will be responsible for timely progress of the research and its documentation and transmittal to the sponsors. The principal investigators may be advisors of graduate students involved in the various research programs of the Steel Research Center.

The graduate student advisors and the majority of the graduate student committee members will consist of CSM faculty members. Participation in the form of direct technical interactions between sponsor representatives and the principal investigators is welcomed and expected.

VII. PRESENTATION OF RESEARCH RESULTS

The results of the Steel Research Center research will be presented in semi-annual progress reports, an annual technical meeting, M.S. and Ph.D. theses, in papers prepared for publication in scientific and engineering journals, and in books which result from conference and symposia proceedings. Participation by non-CSM personnel in the annual technical meetings and receipt of the semi-annual progress reports is limited exclusively to Steel Research Center sponsors of record at the time of the meeting or publication of the reports. Immediately on completion, copies of the various documents will be sent to sponsors of the Steel Research Center. In view of the fact that theses are not written until the end of an investigation and that considerable time is required for the review and publication of journal and symposia articles, the access of sponsors to reports and meetings should ensure timely access to Steel Research Center technical information soon after it is generated. The sponsors, however, shall have the opportunity to review any paper containing any of the results of the research program prior to submission of the paper for publication and shall have the right to request a delay in publication for a period not to exceed one (1) year from the date of submission to the sponsors, provided that a sponsor makes a written request for such delay within sixty (60) days from the date the proposed publication is mailed to the sponsor.

VII. PATENTS

All patents derived from inventions conceived or first actually reduced to practice in the course of the research conducted by personnel of the Steel Research Center pursuant to this agreement shall belong to CSM. Inventions made with support from the National Science Foundation shall be subject to the provisions of Public Law 96-517 and the implementing regulations thereof contained in OMB Circular Al24. CSM agrees that all Steel Research Center sponsors are entitled to a nonexclusive royalty-free license agreement if such license is requested by the sponsor. If sponsors request that CSM take out a patent, the requesting sponsors agree to pay the costs of

the patent application. In the event that a sponsor seeks an exclusive license and such requests are approved by the other sponsors and CSM, then CSM will negotiate an exclusive fee bearing license through one of its agents. The Sponsor has the right to sublicense its parent, subsidiaries, and affiliates.

IX. COMPUTER SOFTWARE

All computer software which is developed under the sponsorship of this contract shall become the property of CSM, and copyrights related to such software shall be issued in the name of CSM. For a period not less than one (1) year following the date of disclosure to the sponsors of the Steel Research Center, CSM shall limit licensing of any such software to said sponsors unless the sponsor waive this limitation in writing. Licensing of software for non-marketing purposes will be royalty free to the Sponsor and, if applicable, its parent, subsidiaries, and affiliates. CSM reserves the right to market licenses to use software governed by this contract at any time after one (1) year from the date of disclosure. The Sponsor agrees not to divulge information concerning software covered by this contract to third parties without securing prior written approval from CSM.

X. FINANCIAL REPORTING AND FUND BALANCES

Within ninety (90) days of the close of a project year, the Sponsor shall by furnished with a summary statement of receipts and expenditures relating to the Steel Research Center. Funds either unspent or unencumbered during any given project year shall roll forward for the benefit of future activities associated with the Steel Research Center.

XI. PROPERTY

Title to all items of property acquired under this contract shall vest in CSM.

XII. SPONSOR NUMBERS

By 01 October 1984 and in the event that CSM has not secured at lest five (5) sponsors for the Steel Research Center, any contracts entered into in support of the Steel Research Center will be deemed null and void and all consideration shall be returned without penalty to the Sponsor. This clause shall not be construed to prevent CSM from entering other contracts for research on steel when such activities are independent of the Steel Research Center program and funding. Ownership of inventions, patents, data computer programs and software resulting from projects totally funded by the Sponsor and independent from this Agreement shall by subject to negotiation independent from this Agreement.

XIII. POLICY FOR JOINING THE STEEL RESEARCH CENTER AFTER OPERATION INITIATION

Sponsors which joint the Steel Research Center after the initial year will join for three years at the then prevailing rates. Furthermore, these sponsors will not have royalty free use of copyrighted computer programs or patents which were disclosed prior to the date of their joining the Steel Research Center.

XIV. DISCRIMINATION IN EMPLOYMENT

Neither party to this contract will discriminate against any employee or applicant for employment because he or she is a disabled veteran or veteran of the Vietnam era in regard to any position for which the employee or applicant for employment is qualified, and otherwise treat qualified disabled veterans and veterans of the Vietnam era without discrimination based upon their disability or veterans status in all employment practices such as the following: employment upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship.

Neither party to this contract will discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, marital status, religion, ancestry, mental or physical handicap, or age. Both parties will take affirmative action to insure that applicants are the above mentioned characteristics. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertizings; lay-offs or terminations; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Both parties agree to post in conspicuous places, available to employees and applicants for employment, notices setting forth provisions of this non-discrimination clause.

XV. MOST FAVORED SPONSOR

In the event that CSM should contract with any entity for support of the Steel Research Center, and should the terms and conditions of that contract by the Sponsor, then CSM shall offer the more favorable terms to the Sponsor. "More favorable" shall be defined for these purposes and granting a scientific or engineering advantage.

XVI. INSURANCE

CSM warrents that it carries insurance to statuatory limits in accordance with Colorado law. The Sponsor warrants that it carries sufficient insurance to meet existent circumstances on behalf of people employed by the Sponsor.

XVII. TERMINATION

The performance of work under this contract may be terminated whenever CSM or the Sponsor determines that such termination is in their better interests. Termination of work hereunder shall be effected by a notice of termination specifying the extent to which performance of work under the contract is terminated and the date upon which termination becomes effective. At least one hundred twenty (120) days notice is required to allow the affected parties to cancel outstanding commitments and to conclude work in an orderly fashion. In the event of termination by the Sponsor, CSM shall be entitled to pursue similar or related work with other sponsors. In the event of termination by CSM, the Sponsor shall receive its prorated share of unspent balances remaining under this contract.

APPENDIX B COLORADO SCHOOL OF MINES CONTACTS

Technical Matters

Dr. George Krauss AMAX Foundation Professor Department of Metallurgical Engineering (303) 273-3774

Department Head

Dr. William D. Copeland Professor and Head Department of Metallurgical Engineering (303) 273-3770 Dr. David K. Matlock Charles F. Fogarty Professor Department of Metallurgical Engineering (303) 273-3775

<u>Institutional</u> <u>Negotiations</u>

Dr. Joseph C. Weber Executive Director for Financial Services Colorado School of Mines (303) 273-3911