

private organizations, to conduct research and development activities, substantial technological benefits will result to the metal casting industry.

(Pub. L. 101-425, §2, Oct. 15, 1990, 104 Stat. 915.)

#### Statutory Notes and Related Subsidiaries

##### SHORT TITLE

Pub. L. 101-425, §1, Oct. 15, 1990, 104 Stat. 915, provided that: "This Act [enacting this chapter] may be cited as the 'Department of Energy Metal Casting Competitiveness Research Act of 1990'."

#### § 5302. Definitions

As used in this chapter, the term—

- (1) "applicant" means:
  - (A) an educational institution;
  - (B) a consortium of educational institutions;
  - (C) a consortium of an educational institution or educational institutions with one or more of the following: Government-owned laboratories, private research organizations, nonprofit institutions, or private firms;

that is located in a region where the metal casting industry is concentrated;

(2) "census region" means one of the four census regions (Northeast, South, Midwest, and West) that are designated as census regions by the Bureau of the Census as of October 15, 1990;

(3) "Department" means the Department of Energy;

(4) "educational institution" means a degree granting institution of at least a baccalaureate level;

(5) "non-Federal source" means the United States metal casting industry, related industries, industry-related associations, individuals, organizations, universities, State agencies, or other entities supporting the metal casting industry;

(6) "metal casting industry" or "industry" means the industries identified by codes numbered 3321, 3322, 3324, 3325, 3363, 3364, 3365, 3366, and 3369, in the Standard Industrial Classification manual<sup>1</sup> published by the Office of Management and Budget in 1987;

(7) "Secretary" means the Secretary of Energy.

(Pub. L. 101-425, §3, Oct. 15, 1990, 104 Stat. 915.)

#### § 5303. Establishment of program

The Secretary, acting in accordance with authority provided in the Federal Non-Nuclear Research and Development Act of 1974 (42 U.S.C. 5901 et seq.), except as otherwise provided in this chapter, shall establish a Metal Casting Competitiveness Research Program (hereafter in this chapter referred to as the "Program") for the purpose of performing and promoting the performance of research and development on issues related to the technology competitiveness and energy efficiency of the United States metal casting industry.

(Pub. L. 101-425, §4, Oct. 15, 1990, 104 Stat. 916.)

<sup>1</sup> So in original. Probably should be capitalized.

#### Editorial Notes

##### REFERENCES IN TEXT

The Federal Non-Nuclear Research and Development Act of 1974, referred to in text, probably means the Federal Nonnuclear Energy Research and Development Act of 1974, Pub. L. 93-577, Dec. 31, 1974, 88 Stat. 1878, which is classified generally to chapter 74 (§5901 et seq.) of Title 42, The Public Health and Welfare. For complete classification of this Act to the Code, see Short Title note set out under section 5901 of Title 42 and Tables.

#### § 5304. Operation of program

##### (a) Solicitation of proposals

Within one year after October 15, 1990, the Secretary shall solicit and, subject to available appropriations, select proposals on a competitive basis from applicants to carry out the program under section 5303 of this title. In order for a proposal to be considered by the Secretary, the applicant shall have in existence at the time the proposal is submitted the following qualifications:

- (1) the technical capability to enable it to make use of existing research support and facilities in carrying out its research objectives;
- (2) a multidisciplinary research staff experienced in metal casting or other directly related technologies; and
- (3) the facilities and equipment capable of conducting at least laboratory scale testing or demonstration of metal casting or related processes.

##### (b) Proposal criteria

Each proposal shall—

(1) demonstrate the support of the metal casting industry by describing—

(A) how industry has participated in deciding what research activities will be undertaken;

(B) how industry will participate in the evaluation of the applicant's progress in research and development activities; and

(C) the extent to which industry funds are committed to the applicant's proposal;

(2) have a commitment for matching funds from non-Federal sources, which shall consist of:

(A) cash, or

(B) as determined by the Secretary, the fair market value of equipment, services, materials, appropriate technology transfer activities, and other assets directly related to the proposal's cost;

(3) include a single or multiyear management plan that outlines how the research and development activities will be administered and carried out;

(4) state the annual cost of the proposal and a breakdown of those costs; and

(5) describe the technology transfer mechanisms the applicant will use to make available research results to industry and to other researchers.

##### (c) Content of management plan

The management plan set forth in subsection (b)(3) shall—

(1) outline the basic research and development activities expected to be performed;

(2) outline who will conduct those research activities;

(3) establish the time frame over which the research activities will take place; and

(4) define the overall program management and direction by—

(A) identifying managerial, organizational and administrative procedures and responsibilities;

(B) outlining how the coordination of research and development between the individuals and organizations involved will be achieved;

(C) demonstrating how implementation and monitoring of the progress of research projects after receipt of funding from the Secretary will be achieved;

(D) demonstrating how recommendations and implementations on modifications to the plan will be achieved; and

(E) providing sufficient rationale to support the plan's costs.

**(d) Selection of proposals**

From the proposals submitted, the Secretary shall select proposals for funding. The Secretary shall attempt to select at least four proposals. The Secretary shall select the proposals that—

(1) will best result in carrying out needed metal casting research and development in one or more of the following general areas—

(A) solidification and casting technologies;

(B) computational modeling and design;

(C) processing technologies and design for energy efficiency, material conservation, environmental protection, or industrial productivity; and

(D) other areas of research, which in the judgment of the Secretary, after consulting with the Board established in section 5306 of this title, further the purposes of this chapter;

(2) represent research and development in specific areas identified in the "Metal Casting Research Priorities" developed annually by the Board pursuant to section 5306(b)(1) of this title;

(3) to the greatest extent possible and subject to available appropriations, ensure that at least one applicant is selected from each of the four census regions of the country where the metal casting industry is concentrated;

(4) demonstrate strong industry support;

(5) ensure the timely transfer of technology to industry; and

(6) otherwise best carry out the purposes of this chapter.

**(e) Funding of program**

From amounts made available in separate appropriation Acts, the Secretary shall provide to each applicant selected the financial and technical assistance and other incentives that are necessary and appropriate to carry out the purposes of this chapter.

**(f) National Metal Casting Research Institute**

Each recipient of financial assistance under subsection (d) shall be known as a "National Metal Casting Research Institute".

(Pub. L. 101-425, § 5, Oct. 15, 1990, 104 Stat. 916.)

**§ 5305. Review**

**(a) Evaluation of research activities**

The Secretary shall regularly monitor and evaluate the research activities of the applicants selected. After considering the reports of the Board provided for in section 5306(b)(2) of this title, the Secretary shall determine whether each applicant selected has complied with the management plan submitted in the original proposal and any modifications made since.

**(b) Annual report**

Each selected applicant in the program shall provide an annual report to the Secretary that explains the progress made, compliance with the management plan, whether changes are needed and are being made to the management plan, and what new research is planned.

**(c) Discontinuation of funding**

In the event a selected applicant has substantially failed in the implementation of the management plan and research activities, the Secretary shall discontinue funding.

**(d) Solicitation of new proposals**

Upon completion or discontinuance of any research activity authorized in section 5304 of this title, the Secretary shall, using available funds appropriated pursuant to this chapter, solicit new research proposals as set forth under the terms of this chapter.

(Pub. L. 101-425, § 6, Oct. 15, 1990, 104 Stat. 918.)

**§ 5306. Industrial Advisory Board**

**(a) Establishment of Board**

Within 120 days after October 15, 1990, the Secretary, after consulting with representatives of trade and technical associations of the metal casting industry, shall establish an Industrial Advisory Board (hereafter in this chapter referred to as the "Board") to provide guidance and oversight in implementing the selection criteria and operation of the program. The Board shall be composed of nine members who are selected by the Secretary, a majority of whom shall be individuals from the metal casting industry or individuals affiliated with the industry. At least one member of the Board shall be chosen from each of the four census regions of the country. Each Board member shall serve for a term not to exceed five years, but may be reappointed for successive terms.

**(b) Review and recommendations**

(1) Within 180 days after October 15, 1990, and annually thereafter, the Board shall develop from the general research areas identified in section 5304(d) of this title and submit to the Secretary a list of Metal Casting Research Priorities. Such list shall, to the greatest extent possible, identify specific areas of research that would be considered of a priority nature to the United States metal casting industry.

(2) On an annual basis the Board shall—

(A) review the Secretary's solicitation and selection of research proposals and make recommendations as to how each such activity can be altered so as to better achieve the purposes of this chapter; and