

responsible for administering FHWA planning and research funds passed through to MPOs and local governments, for ensuring that such funds are expended for eligible activities, and for ensuring that the funds are administered in accordance with this part, 49 CFR part 18, Uniform Administrative Requirements for Grants and Agreements to State and Local Governments, and applicable OMB cost principles. The State DOTs shall follow State laws and procedures when awarding and administering subgrants to MPOs and local governments and must ensure that the requirements of 49 CFR 18.37(a) have been satisfied.

(n) *Subgrants to universities, hospitals, and other non-profit organizations.* The State DOTs and subrecipients are responsible for ensuring that FHWA planning and research funds passed through to universities, hospitals, and other non-profit organizations are expended for eligible activities and for ensuring that the funds are administered in accordance with this part, 49 CFR part 19, Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations, and applicable OMB cost principles.

(o) *Suspension and debarment.* (1) The State DOTs and their subrecipients shall not award grants or cooperative agreements to entities who are debarred or suspended, or otherwise excluded from or ineligible for participation in Federal assistance programs under Executive Order 12549 of February 18, 1986 (3 CFR, 1986 Comp., p. 189); and

(2) The State DOTs and their subrecipients shall comply with the provisions of 49 CFR part 29, subparts A through E, for procurements from persons (as defined in 49 CFR 29.105) who have been debarred or suspended.

(p) *Supplies.* Acquisition and disposition of supplies acquired by the State DOTs and their subrecipients with FHWA planning and research funds must be in accordance with 49 CFR 18.33 or 49 CFR 19.35.

Subpart B—Research, Development and Technology Transfer Program Management

§ 420.201 What is the purpose of this subpart?

The purpose of this subpart is to prescribe requirements for research, development, and technology transfer (RD&T) activities, programs, and studies undertaken by State DOTs and their subrecipients with FHWA planning and research funds.

§ 420.203 How does the FHWA define the terms used in this subpart?

Unless otherwise specified in this part, the definitions in 23 U.S.C. 101(a) and subpart A of this part, are applicable to this subpart. As used in this subpart:

Applied research means the study of phenomena to gain knowledge or understanding necessary for determining the means by which a recognized need may be met; the primary purpose of this kind of research is to answer a question or solve a problem.

Basic research means the study of phenomena, and of observable facts, without specific applications towards processes or products in mind; the primary purpose of this kind of research is to increase knowledge.

Development means the systematic use of the knowledge or understanding gained from research, directed toward the production of useful materials, devices, systems or methods, including design and development of prototypes and processes.

Final report means a report documenting a completed RD&T study or activity.

Intermodal RD&T means research, development, and technology transfer activities involving more than one mode of transportation, including transfer facilities between modes.

Peer exchange means a periodic review of a State DOT's RD&T program, or portion thereof, by representatives of other State DOT's, for the purpose of exchange of information or best practices. The State DOT may also invite the participation of the FHWA, and other Federal, State, regional or local

transportation agencies, the Transportation Research Board, academic institutions, foundations or private firms that support transportation research, development or technology transfer activities.

RD&T activity means a basic or applied research project or study, development or technology transfer activity.

Research means a systematic study directed toward fuller scientific knowledge or understanding of the subject studied. Research can be basic or applied.

Technology transfer means those activities that lead to the adoption of a new technique or product by users and involves dissemination, demonstration, training, and other activities that lead to eventual innovation.

Transportation Research Information Services (TRIS) means the database produced and maintained by the Transportation Research Board and available online through the National Transportation Library. TRIS includes bibliographic records and abstracts of ongoing and completed RD&T activities. TRIS Online also includes links to the full text of public-domain documents.

§ 420.205 What is the FHWA's policy for research, development, and technology transfer funding?

(a) It is the FHWA's policy to administer the RD&T program activities utilizing FHWA planning and research funds consistent with the policy specified in § 420.105 and the following general principles in paragraphs (b) through (g) of this section.

(b) The State DOTs must provide information necessary for peer exchanges.

(c) The State DOTs are encouraged to develop, establish, and implement an RD&T program, funded with Federal and State DOT resources that anticipates and addresses transportation concerns before they become critical problems. Further, the State DOTs are encouraged to include in this program development and technology transfer programs to share the results of their own research efforts and promote the use of new technology.

(d) To promote effective use of available resources, the State DOTs are en-

couraged to cooperate with other State DOTs, the FHWA, and other appropriate agencies to achieve RD&T objectives established at the national level and to develop a technology transfer program to promote and use those results. This includes contributing to cooperative RD&T programs such as the NCHRP, the TRB, and transportation pooled fund studies as a means of addressing national and regional issues and as a means of leveraging funds.

(e) The State DOTs will be allowed the authority and flexibility to manage and direct their RD&T activities as presented in their work programs, and to initiate RD&T activities supported by FHWA planning and research funds, subject to the limitation of Federal funds and to compliance with program conditions set forth in subpart A of this part and § 420.207.

(f) The State DOTs will have primary responsibility for managing RD&T activities supported with FHWA planning and research funds carried out by other State agencies and organizations and for ensuring that such funds are expended for purposes consistent with this subpart.

(g) Each State DOT must develop, establish, and implement a management process that ensures effective use of available FHWA planning and research funds for RD&T activities on a statewide basis. Each State DOT is permitted to tailor its management process to meet State or local needs; however, the process must comply with the minimum requirements and conditions of this subpart.

(h) The State DOTs are encouraged to make effective use of the FHWA Division, Resource Center, and Headquarters office expertise in developing and carrying out their RD&T activities. Participation of the FHWA on advisory panels and in program exchange meetings is encouraged.

§ 420.207 What are the requirements for research, development, and technology transfer work programs?

(a) The State DOT's RD&T work program must, as a minimum, consist of a description of RD&T activities to be accomplished during the program period, estimated costs for each eligible