and consists of activities to achieve optimal performance. These activities include evaluation of the hardware, software and system performance on traffic; completion and updating of basic data needed to operate the system; and any modifications or corrections needed to improve system performance.

§ 655.405 Policy.

Implementation and efficient utilization of traffic surveillance and control systems are essential to optimize transporation systems efficiency, fuel conservation, safety, and environmental quality.

§ 655.407 Eligibility.

Traffic surveillance and control system projects are an integral part of Federal-aid highway construction and all phases of these projects are eligible for funding with appropriate Federal-aid highway funds. The degree of sophistication of any system must be in scale with needs and with the availability of personnel and budget resources to operate and maintain the system.

§ 655.409 Traffic engineering analysis.

Traffic surveillance and control system projects shall be based on a traffic engineering analysis. The analysis should be on a scale commensurate with the project scope. The basic elements of the analysis are:

(a) *Preliminary analysis.* The Preliminary Traffic Engineering Analysis should determine: The area to be controlled; transportation characteristics; objectives of the system; existing systems resources (including communications); existing personnel and budget resources for the maintenance and operation of the system.

(b) *Alternative systems analysis.* Alternative systems should be analyzed as applicable. For the alternatives considered, the analysis should encompass incremental initial costs; required maintenance and operating budget and personnel resources; and expected benefits. Improved use of existing resources, as applicable, should be considered also.

(c) *Procurement and system start-up analysis.* Procurement and system start-up methods should be considered in the analysis. Federal-aid laws, regulations, policies, and procedures provide considerable flexibility to accommodate the special needs of systems procurement.

(d) *Special features analysis.* Unique or special features including special components and functions (such as emergency vehicle priority control, redundant hardware, closed circuit television, etc.) should be specifically evaulated in relation to the objectives of the system and incremental initial costs, operating costs, and resource requirements.

(e) *Analysis of laws and ordinances.* Existing traffic laws, ordinances, and regulations relevant to the effective operation of the proposed system shall be reviewed to ensure compatibility.

(f) *Implementation plan.* The final element in the traffic engineering analysis shall be an implementation plan. It shall include needed legislation, systems design, procurement methods, construction management procedures including acceptance testing, system start-up plan, operation and maintenance plan. It shall include necessary institutional arrangements and the dedication of needed personnel and budget resources required for the proposed system.

(Approved by the Office of Management and Budget under control number 2125–0512)

[49 FR 8436, Mar. 7, 1984, as amended at 59 FR 33910, July 1, 1994]

§ 655.411 Project administration.

(a) Prior to authorization of Federal-aid highway funds for construction, there should be a commitment to the operations plan (see § 655.409 (f)).

(b) The plans, specifications and estimates submittal shall include a total system acceptance plan.

(c) Project approval actions are delegated to the Division Administrator. Approval actions for traffic surveillance and control system projects costing over $1,000,000 are subject to review by the Regional Administrator prior to approval of plans, specifications, and estimates.

(d) System start-up is an integral part of a surveillance and control project.

(1) Costs for system start-up, over and above those attributable to routine

maintenance and operation, are eligible for Federal-aid funding.

(2) Final project acceptance should not occur until after completion of the start-up phase.

Subpart E [Reserved]

Subpart F—Traffic Control Devices on Federal-Aid and Other Streets and Highways

SOURCE: 48 FR 46776, Oct. 14, 1983, unless otherwise noted.

§ 655.601 Purpose.

To prescribe the policies and procedures of the Federal Highway Administration (FHWA) to obtain basic uniformity of traffic control devices on all streets and highways in accordance with the following references that are approved by the FHWA for application on Federal-aid projects:

(a) Manual on Uniform Traffic Control Devices (MUTCD), 2000 Millennium Edition, FHWA dated December, 2000. This publication is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 and is on file at the Office of the FEDERAL REGISTER, 800 North Capitol Street, NW., Suite 700, Washington, DC. It is available for inspection and copying at FHWA, 400 Seventh Street, SW., Room 3408, Washington, DC 20590, as provided in 49 CFR part 7. The text is also available from the FHWA Office of Transportation Operations' web site at: *http://mutcd.fhwa.dot.gov*.

(b) Standard Alphabets for Highway Signs, FHWA, 1966 Edition, Reprinted May 1972. (This publication is incorporated by reference and is on file at the Office of the Federal Register in Washington, DC. This document is available for inspection and copying as provided in 49 CFR part 7, appendix D).

(c) Guide to Metric Conversion, AASHTO, 1993. This publication is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 and is on file at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. This document is available for inspection as provided in 49 CFR part 7. It may be purchased from the American Association of State Highway and Transportation Officials, Suite 249, 444 North Capitol Street, NW., Washington, DC 20001.

(d) Traffic Engineering Metric Conversion Factors, 1993—Addendum to the Guide to Metric Conversion, AASHTO, October 1993. This publication is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 and is on file at the Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC. This document is available for inspection as provided in 49 CFR part 7. It may be purchased from the American Association of State Highway and Transportation Officials, Suite 249, 444 North Capitol Street, NW., Washington, DC 20001.

[51 FR 16834, May 7, 1986, as amended at 60 FR 18521, Apr. 11, 1995; 61 FR 29626, June 11, 1996; 62 FR 1373, Jan. 9, 1997; 63 FR 8351, Feb. 19, 1998; 63 FR 33549, June 19, 1998; 64 FR 33753, June 24, 1999; 65 FR 13, Jan. 3, 2000; 65 FR 78958, Dec. 18, 2000]

§ 655.602 Definitions.

The terms used herein are defined in accordance with definitions and usages contained in the MUTCD and 23 U.S.C. 101(a).

§ 655.603 Standards.

(a) *National MUTCD*. The MUTCD approved by the Federal Highway Administrator is the national standard for all traffic control devices installed on any street, highway, or bicycle trail open to public travel in accordance with 23 U.S.C 109(d) and 402(a). The national MUTCD is specifically approved by the FHWA for application on any highway project in which Federal highway funds participate and on projects in federally administered areas where a Federal department or agency controls the highway or supervises the traffic operations.

(b) *State or other Federal MUTCD*. (1) Where State or other Federal agency MUTCDs or supplements are required, they shall be in substantial conformance with the national MUTCD. Changes to the national MUTCD issued by the FHWA shall be adopted by the States or other Federal agencies within