

**§ 973.204 Management systems requirements.**

(a) The BIA, in consultation with the tribes, shall develop, establish and implement nationwide pavement, bridge, and safety management systems for federally and tribally owned IRRs. The BIA may tailor the nationwide management systems to meet the agency's goals, policies, and needs, after considering the input from the tribes, and using professional engineering and planning judgment to determine the required nature and extent of systems coverage consistent with the intent and requirements of this rule.

(b) The BIA and the FHWA, in consultation with the tribes, shall develop an implementation plan for each of the nationwide management systems. These plans will include, but are not limited to, the following: Overall goals and policies concerning the nationwide management systems, each agency's responsibilities for developing and implementing the nationwide management systems, implementation schedule, data sources, including the need to accommodate State and local data, and cost estimate.

(c) Indian tribes may develop, establish, and implement tribal management systems under a self-determination contract or self-governance annual funding agreement. The tribe may tailor the management systems to meet its goals, policies, and needs, using professional engineering and planning judgment to determine the required nature and extent of systems coverage consistent with the intent and requirements of this rule.

(d) The BIA, in consultation with the tribes, shall develop criteria for cases in which tribal management systems are not appropriate.

(e) The BIA, in consultation with the tribes, or the tribes under a self-determination contract or self-governance annual funding agreement, may incorporate data provided by States and local governments into the nationwide or tribal management systems, as appropriate, for State and locally owned IRRs.

(f) The BIA, in consultation with the tribes, shall develop and implement procedures for the development, establishment, implementation and oper-

ation of nationwide management systems. If a tribe develops tribal management systems, the tribe shall develop and implement procedures for the development, establishment, implementation and operation of tribal management systems. The procedures shall include:

(1) A description of each management system;

(2) A process to operate and maintain the management systems and their associated databases;

(3) A process for data collection, processing, analysis and updating for each management system;

(4) A process for ensuring the results of the management systems are considered in the development of IRR transportation plans and transportation improvement programs and in making project selection decisions under 23 U.S.C. 204; and

(5) A process for the analysis and coordination of all management systems outputs to systematically operate, maintain, and upgrade existing transportation assets cost-effectively;

(g) All management systems shall use databases with a common or coordinated reference system that can be used to geolocate all database information.

(h) Existing data sources may be used by the BIA and the tribes to the maximum extent possible to meet the management system requirements.

(i) A nationwide congestion management system is not required. The BIA and the FHWA, in consultation with the tribes, shall develop criteria for determining when congestion management systems are required for BIA or tribal transportation facilities providing access to and within the Indian reservations. Either the tribes or the BIA, in consultation with the tribes, shall develop, establish and implement congestion management systems for the transportation facilities that meet the criteria.

(j) The BIA shall develop an appropriate means to evaluate the effectiveness of the nationwide management systems in enhancing transportation investment decisions and improving the overall efficiency of the affected transportation systems and facilities.

This evaluation is to be conducted periodically, preferably as part of the BIA planning process to assist the FHWA in evaluating the efficiency and effectiveness of the management systems as a component of the IRR program, and may include consultation with the tribes, as appropriate.

(k) The management systems shall be operated so investment decisions based on management system outputs can be accomplished at the BIA region and tribal level and can be utilized throughout the transportation planning process.

**§ 973.206 Funds for establishment, development, and implementation of the systems.**

The IRR program management funds may be used to accomplish nationwide management system activities. For tribal management system activities, the IRR two percent tribal transportation planning or construction funds may be used. (Refer to 23 U.S.C. 204(b) and 204(j)). These funds are to be administered in accordance with the procedures and requirements applicable to the funds.

**§ 973.208 Indian lands pavement management system (PMS).**

In addition to the requirements provided in § 973.204, the PMS must meet the following requirements:

(a) The BIA shall have PMS coverage for all federally and tribally owned, paved IRRs included in the IRR inventory.

(b) Where a tribe collects data for the tribe's PMS, the tribe shall provide the data to the BIA to be used in the nationwide PMS.

(c) The nationwide and tribal PMSs may be based on the concepts described in the AASHTO's "Pavement Management Guide."<sup>1</sup>

(d) The nationwide and tribal PMSs may be utilized at various levels of

technical complexity depending on the nature of the pavement network. These different levels may depend on mileage, functional classes, volumes, loading, usage, surface type, or other criteria the BIA and ITGs deem appropriate.

(e) A PMS shall be designed to fit the BIA's or tribes' goals, policies, criteria, and needs using the following components, at a minimum, as a basic framework for a PMS:

(1) A database and an ongoing program for the collection and maintenance of the inventory, inspection, cost, and supplemental data needed to support the PMS. The minimum PMS database shall include:

(i) An inventory of the physical pavement features including the number of lanes, length, width, surface type, functional classification, and shoulder information;

(ii) A history of project dates and types of construction, reconstruction, rehabilitation, and preventive maintenance. If some of the inventory or historic data is difficult to establish, it may be collected when preservation or reconstruction work is performed;

(iii) A condition survey that includes ride, distress, rutting, and surface friction (as appropriate);

(iv) Traffic information including volumes and vehicle classification (as appropriate); and

(v) Data for estimating the costs of actions.

(2) A system for applying network level analytical procedures that are capable of analyzing data for all federally and tribally owned IRR in the inventory or any subset. The minimum analyses shall include:

(i) A pavement condition analysis that includes ride, distress, rutting, and surface friction (as appropriate);

(ii) A pavement performance analysis that includes present and predicted performance and an estimate of the remaining service life (performance and remaining service life to be developed with time); and

(iii) An investment analysis that:

(A) Identifies alternative strategies to improve pavement conditions;

(B) Estimates costs of any pavement improvement strategy;

<sup>1</sup>"Pavement Management Guide," AASHTO, 2001, is available for inspection as prescribed at 49 CFR part 7. It is also available from the American Association of State Highway and Transportation Officials (AASHTO), Publication Order Dept., P.O. Box 96716, Washington, DC 20090-6716 or online at <http://www.transportation.org/publications/bookstore.nsf>.