



TECHNICAL SUBCOMMITTEE – Work Plan as revised to reflect 4-1-2011 through 3-31-2012

The purpose of the Technical Subcommittee is to (1) develop and/or evaluate alternative passenger rail car and propulsion technologies and designs, (2) evaluate proposed vehicle subsystems, (3) establish performance and safety criteria standards, develop specifications, (4) respond to requests made by the Committee or Executive Board to assist in carrying out their duties; and (4) any such other tasks and duties as assigned by the Executive Board.

The Technical Subcommittee will maintain an updated catalog of one or more approved passenger vehicle specifications that are determined to be eligible for use in the Next Generation Passenger Rail Equipment Pool. As appropriate, it will develop its ongoing efforts into recommendations for the Executive Board to act upon. The complete specifications or portions thereof may, as determined by the Executive Board, be subject to limitations.

Subjects to be addressed by the Technical Subcommittee may include but are not limited to:

- Safety criteria
- Regulatory compliance requirements and procedures
- Interoperability of car/locomotive/infrastructure requirements
- Performance Criteria
- Passenger car interior configurations, including design enhancements to facilitate travel by the disabled and elderly communities
- Passenger amenities
- Motive Power
- Operational issues
- Efficiency of operations
- Economies of scale benefits from common fleets
- Servicing/Inspection requirements
- Maintenance and overhaul criteria
- Procurement guidelines
- Inventory criteria for both spare parts as well as vehicle spare margins
- Maintenance facility requirements

While exploring these subjects, the subcommittee shall utilize lessons learned from the worldwide development of intercity passenger rail rolling stock and apply best practices to promote safe, reliable, efficient and cost effective development and utilization of equipment. Amtrak will need to provide significant technical support to the process. Working in partnership with the FRA and the state partners, Amtrak will provide the technical coordination role and the leadership of the technical sub-committee.

SCOPE OF WORK

The Technical Subcommittee Scope of Work April 2011 through March 2012 shall include the following deliverables:

- Development and completion of a NGEC single level trainset Specification by July 31, 2011
- Development of a NGEC equipment pool management plan
- Development of a systems engineering process for the ongoing support of the existing specifications and for the future development of new specification
- Support of any acquisition programs that are commenced based on the specifications delivered to date (bi-level passenger car, single level standalone passenger car and high speed diesel locomotive) as well as any specification completed during this period
- Development and implementation of the strategy on standardization as it relates to existing specifications and specifications yet to be developed or approved

The Technical Subcommittee will hold **periodic** conference calls, web based seminars as necessary, and in-person meetings on a periodic basis as appropriate. **In person meetings will be scheduled as required for the final debate and acceptance of specifications.**

The Technical Subcommittee will engage with the industry to examine issues and develop recommendations to the Executive Board that will culminate in the adoption of the above referenced specifications. In order to accomplish these efforts, the work required to deliver these specifications will include (but is not limited to) the following items:

- Survey and collation of key performance requirements of state services
- Historical and technical analysis in assessing states responses to the equipment needs survey
- Definition of performance requirements for core product
- Identification of customer specific elements that can be varied without impacting the core specification
- Survey of developments in the supplier base for the whole vehicle and sub-systems to be required
- Definition with the FRA of the regulatory requirements for the vehicle including (but not limited to) the implementation of crash energy management in advance of the publication of new requirements
- Identification of proposed maintenance philosophies and the impact on the vehicle specification process
- Definition of the expected performance regime that equipment will experience in service utilization
- Agreement on the procurement philosophy to be utilized and its impact on the scope of the vehicle specification
- Creation of a development path for the specification to allow the progressive updating of the specification to meet future needs without compromising the objective of equipment commonality

- Compilation of technical requirements, performance standards, measurement criteria for those standards, testing and proving requirements and a performance model for in service support
- Generation of the first draft of the specification
- Circulation to interested parties, receipt of comments and update of the draft specification based on the comments received and accepted
- Issue of the final specification document
- Involvement in the project team established to manage procurement activities
- Response to questions provided by prospective bidders during the RFP phase
- Questioning of bidders after bid submission and analysis of the proposals from a technical and operational perspective
- Management of the technical interaction during any ongoing procurement phases including approval of design selections during design and build, oversight of the inspection process, management of the acceptance process, testing of equipment prior to service entry and then support to equipment upon entry into service

In order to complete the scheduled tasks, the technical subcommittee will make use of consultants to support the tasks as required. This consultancy support will include the management of the tasks of the technical subcommittee as well as technical specialist consultancy for the development and implementation of the specifications for the vehicles themselves. The use of consultants will be undertaken in a manner that is best suited to the entire process to minimize handover and learning issues and will be based on the existing relationships with consultants that are known to be able to deliver the capabilities required.