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Government of India (Bharat Sarkar)
Ministry of Railways (Rail Mantralaya)
Railway Board

No. No.2003/Sig/SGF/7

New Delhi, dt. 14th September, 2006.

General Manager (S&T),
All Indian Railways,
General Manager (S&T) Const.,
All Indian Railways,
Director General, Signals, RDSO,

G.Ms/S&T, RITES, IRCON, RVNL,
Metro/Kolkata, CORE/ALD,
Director / IRISSET/Secunderabad,
Sr. Professor/S&T, RSC, BRC.
FA&CAO, All Indian Railways.
FA&CAO (Const), All Indian Railways.

Sub: Policy for type approval and cross acceptance for software embedded electronic safety systems.

Ref: Board's letter Nos. 2003/Sig/SGF/7 dt.16.06.2003,
2003/Sig/SGF/7 dt. 08.10.2003, 2005/Sig/SGF/4/EI dt. 14.10.2005
& No.2003/Sig/SGF/7 dated 03-01.2006

To ensure the long term availability of spares and maintenance support at reasonable rates, the procedure for approving manufacturers by RDSO for supply and installation of EI and other software embedded electronic safety systems for railway signalling should lay emphasis on adequate training for railway staff in carrying out (by themselves) necessary software changes needed for yard alterations and also ensuring local manufacturing facility, indigenisation in a phased manner, availability of adequate expertise / technical personnel / equipment and testing facilities and maintenance support with the suppliers in India. The following additional steps have to be taken by RDSO over and above the norms for approval of imported equipment on cross acceptance basis which have been circulated vide Board's letter No. 2003/Sig/SGF/7 dt.16.06.2003, 2003/Sig/SGF/7 dt. 08.10.2003, 2005/Sig/SGF/4/EI dated 14.10.2005 and Board's letter No.2003/Sig/SGF/7 dated 03-01.2006 :-

- a) EI and other software embedded electronic safety system for Railway Signalling on IR have to be procured from RDSO approved sources only. For this purpose, in respect of EI, RDSO should prepare two separate approved lists for yard size upto 50 routes and for yard size above 50 upto 200 routes (and later on beyond 200 routes).
- b) The suppliers of EI and other software embedded electronic safety systems should have indigenous manufacturing and testing facilities and necessary skilled and trained manpower with good expertise in the relevant field at the time of approval.
- c) Further, the suppliers have to commit to a phased indigenisation programme of 33%, 66% and 100% from the 1st year to the 3rd year respectively of supply in respect of manufacture of PCB assemblies and other active / passive sub-systems. RDSO may prescribe a performance guarantee bond of appropriate amount to enforce this clause and the amount fixed should be such as to ensure participation by serious suppliers interested in long-term presence in India.
- d) With the stipulation of stringent requirements regarding indigenous manufacturing facilities and availability of testing facilities and technical personnel and commitment to indigenisation in a phased manner, the

stipulation (para VI.1 under new para of Board's letter dated 03.01.06) in respect of one set of equipment to be installed by the applicant free of cost for demonstration in actual working conditions prevalent on IR, if no such equipment is already working on the Indian Railways, stands modified as under :-

"Provisional approval for supply of the proposed embedded system for safety application can be given by RDSO based on the above procedure and the provisional approval will authorize the supplier to deliver the first 10 numbers and based on the performance of the equipment under actual field conditions in IR, RDSO may grant final approval for supply of the balance quantity by the supplier."

- e) Wherever medium, large-scale EI's are built-up by adopting a building block approach using proven individual sub-systems, the cross acceptance procedure will be governed by the provision of para VI.4(b) and (c) of Board's letter No 2003/Sig/SGF/7 dt. 03.01.06. Whenever these are based on a totally new design approach, the cross-acceptance will be governed by the provisions of para 4(b) of Board's letter 2003/Sig/SGF/7 dated 08.10.2003 excepting that since number of medium / large EI's are relatively less in number, the minimum number of equipment may be modified as 10 (86,400 equipment hours) and 20% of the equipment with a minimum of 5, should be in continuous operation for a minimum period of 720 days.
- f) This scheme of approval will be applicable to software embedded electronic safety systems for railway signalling, such as, universal fail safe multiplexer, digital axle counter, SSI (EI), TAWD, TPWS (a variant of AWS) etc.
- g) The revised procedure in respect of RDSO approval for software embedded electronic safety systems will be applicable to all new tenders to be floated from now onwards.

This issues with the approval of Board (ML and FC).

Vh
14/9/06
(V. Shanker)
Additional Member (Signal)
Railway Board.

Copy to: F(X)-II & Budget Branches, Railway Board.