

5.1.24. CERTIFICATION OF SPECIALISTS ON NON-DESTRUCTIVE TESTING OF OBJECTS RAILWAY TRANSPORT IN THE IZHEVSK STATE TECHNICAL UNIVERSITY

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An Authorized Agency and Examination Center for certification personnel on non-destructive testing of the railway transport technical objects is organized in 2008 in Izhevsk State Technical University. Center has established in accordance with “the Regulations the certification of personnel for nondestructive testing of technical objects of railway transport”. It is the fifth authorized agency in Russia. The Center was accredited Rostekhnregulirovanie and the parent organization RZD “NC Center” in November 2008.

The Scope of certification is an acoustic (ultrasonic), acoustic emission, magnetic method controls following objects of railway transport:

- Freight car and coach: wheelsets, components, assemblies and welded joints;
- Locomotives: wheelsets, components, assemblies and welded joints;
- Rails and turnouts in external environment and rehabilitated of rail welding enterprise.
- Welded joints of metal railway bridge construction.

Center is equipped with examination samples with natural and artificial models of defects, and the necessary number of up-to-date defectoscopes for practical examinations. Examination center is located in five rooms with total area of 100 sq.m.

Programs specific and practical exams on the first and second levels and collections issues are developed. All questions (from 100 to 250) are made in the form of tests to computerized testing.

The centre is focused first of all on certification of the professionals working at the enterprises carload, locomotive and travelling facilities of the Gorki railway. In eight repair carload depots of Gorki Directorate on repair of freight cars works about 260 specialists, in locomotive repair depots – number of specialists makes to 50 persons. Besides it is second center which is engaged with the certification of specialists in acoustic emission control of cast parts in the coach sector.

Work is planned so that for each type of control is carried out from two to four certifications in a year. Before the examinations are consultations of 40 hours, then three exams – theoretical, practical and special. After theoretical and special examinations the commission spends interview individually with each.

There are specialists of the third and second level of qualification for each type of control is work in the center. As a part of examination commissions specialists of the third level Gorki DRV work also.

In 2009 there have passed certification specialists of carload repair depots and factories by the stated types of the control in number of 115 (79) persons with Gorki, Moscow, Northern, October DRV, the enterprises of Izhevsk, Kambarka and Bryansk. From them on the first level 22 persons, on the second – 93 were certificated. The distribution among the non-destructive methods is following: acoustic method – 46%; acoustic-emission method – 42%; magnetic method – 12% from total number of certificated specialists.