

Technical Management of Secure Radio and Television Broadcasting in the New Media Environment: Postprint

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Abstract

With the continuous growth of China's economy and relentless innovation in science and technology, the broadcast television industry has achieved a qualitative leap in its development. In the new media environment, the management of broadcast television safe broadcasting technology has become particularly critical, as it directly concerns the smooth transmission of programs and the healthy dissemination of television culture. Consequently, relevant departments must attach paramount importance to the daily management and maintenance of broadcast television safe broadcasting. To fully ensure the normal and stable operation of broadcast television, it is essential to address existing problems in current technology management, promptly adopt scientific and effective solutions and measures, continuously improve technology management levels, and promote the harmonious and sustainable development of the broadcast television industry. This paper will further conduct analysis and discussion on broadcast television safe broadcasting technology management in the new media environment.

Full Text

Abstract

With China's sustained economic growth and continuous technological innovation, the radio and television industry has achieved qualitative leaps in development. In the new media environment, the technical management of safe broadcasting has become particularly critical, as it directly affects the smooth transmission of programs and the healthy dissemination of television culture. Therefore, relevant departments must attach great importance to the daily management and maintenance of safe broadcasting. To ensure the normal and stable operation of radio and television services, it is essential to address existing

problems in current technical management by promptly adopting scientifically effective solutions and measures, continuously improving technical management standards, and promoting the harmonious and sustainable development of the broadcasting industry. This paper provides an in-depth analysis and discussion of technical management for safe radio and television broadcasting in the new media environment.

Keywords: New media environment; Radio and television; Safe broadcasting; Technical management

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1. Basic Connotation of Safe Radio and Television Broadcasting in the New Media Environment

Safe broadcasting essentially means that during actual transmission, television network signals remain stable and uninterrupted, content stays healthy and uncorrupted, and users can normally receive program information. In the new media environment, the basic connotation of modern safe broadcasting includes the following aspects: (1) **Safety and reliability of transmission systems.** Technical personnel must ensure that transmission equipment possesses strong resistance to external attacks and can create a secure and stable network environment for program broadcasting. (2) **Safety of personnel and equipment.** This means ensuring the protection of both personnel and various equipment during program production and broadcasting to avoid accidents causing casualties or property damage. (3) **Healthy and civilized program content.** Program supervision and management must be strengthened to ensure broadcast content is positive, healthy, and civilized, establishing correct public opinion guidance. (4) **Secure signal reception.** All television network signals received by market users must be authorized by relevant departments, with illegal signals strictly cracked down upon.

2. Main Problems in Technical Management of Safe Broadcasting

2.1 Outdated Safe Broadcasting Technology and Incomplete Equipment Management

In the new media environment, local radio and television stations must prioritize safe broadcasting technical management. Senior leadership should strengthen scientific guidance to relevant departments to ensure all employees establish advanced work concepts and correctly recognize the importance of digital information technology application. They must effectively implement various safe

broadcasting technical management measures to improve overall safety levels. However, in reality, station leaders often focus only on ensuring programs air on schedule and achieve good ratings, while neglecting the technical management of safe broadcasting. Consequently, insufficient investment is made in this area, and technical management personnel are not organized to participate in professional education and training, resulting in backward application skills and inability to master the latest safe broadcasting technologies. Furthermore, technical management departments lack timely updates and maintenance of software and hardware equipment, leading to widespread equipment aging. This makes sudden operational failures more likely, reducing the quality of safe broadcasting and hindering the harmonious and stable development of broadcasting enterprises. Technical managers also fail to receive adequate attention from senior leadership, resulting in insufficient self-learning motivation and difficulty in meeting job requirements with their overall capabilities and qualities [2].

2.2 Lack of Scientific Standards for Safe Broadcasting Technology and Inadequate Management Practices

As early as 2010, China's former State Administration of Press, Publication, Radio, Film and Television issued trial regulations on safe broadcasting management, which clearly defined requirements for technical management, system configuration, equipment safety, and operation and maintenance at local broadcasting centers nationwide [1]. However, due to the numerous departments within current broadcasting units and their heavy workload with interconnected processes, the difficulty of safe broadcasting has increased, creating security vulnerabilities in technical management. Additionally, as China's broadcasting system is still undergoing reform, various departments within broadcasting units require planning and transformation, and positions need optimization and adjustment. These factors have prevented the establishment of optimal scientific implementation standards for safe broadcasting technical management and the effective creation of a comprehensive system of requirements and norms, resulting in an imperfect technical support system and leaving certain technical hidden dangers during program broadcasting. The work attitude of safe broadcasting technical managers also affects program safety outcomes. Due to their inadequate professional skills and weak sense of responsibility, they lack learning and application of new technologies and software equipment, leading to various failures during the safe broadcasting process.

2.3 Regional Disparities in Safe Broadcasting Technology and Increased Management Challenges from High-Tech Applications

China has numerous radio and television units, and disparities in their safe broadcasting technical management levels are inevitable. Different leadership philosophies also lead to varying degrees of emphasis on safe broadcasting technical management. Units that prioritize this work typically adopt more ad-

vanced technical management models and methods, with stronger overall technical management teams. Conversely, units that neglect safe broadcasting technical management invest limited funds and fail to regularly organize technical personnel for high-tech learning and training. Currently, the provincial-level unified coordination and scheduling management system for broadcasting still requires further development and improvement [3]. With the continuous development of new media and the widespread application of digital and intelligent technologies, the difficulty of safe broadcasting technical management has increased significantly. Technology updates and equipment replacement have created maintenance difficulties in technical management work, hindering the smooth implementation of various tasks within broadcasting units.

3. Strategies for Improving Safe Broadcasting Technical Management

3.1 Strengthen Technology Updates and Improve Equipment Management

Against the backdrop of vigorous new media innovation and development, leaders of radio and television units must actively transform their mindsets, enhance their understanding of the new media technology industry, and prioritize safe broadcasting work. Attention must be paid not only to ensuring programs air on schedule but also to guaranteeing stable signals and good broadcasting effects for viewers. In terms of technical management and equipment management for safe broadcasting, stations should increase capital investment according to their own development conditions to introduce the latest management technologies and methods, promptly update equipment in machine rooms, and organize safe broadcasting technical managers to participate in high-tech learning and exchange activities. This will continuously improve their professional capabilities and comprehensive qualities, ensuring they can fully leverage the latest technical management methods to provide strong guarantees for safe program broadcasting.

3.2 Establish a Comprehensive Management System and Standards, Strengthen Technical Management

Radio and television units must effectively implement various safe broadcasting management measures, deepen internal system reforms, clarify the responsibilities of various departments and positions, and resolutely implement an accountability system to avoid mutual shirking of responsibilities when problems arise. Based on China's current national conditions, higher-level departments should establish a scientific and comprehensive safe broadcasting technical management system and standards, clarify various implementation standards, continuously optimize and adjust the management structure system for safe broadcasting technical management, and adopt effective preventive measures to address current vulnerabilities in safe broadcasting technical management, thereby avoiding

technical hidden dangers in the management process. Furthermore, each broadcasting unit should strengthen safe broadcasting technical management, enhance daily supervision of technical management personnel, ensure they fulfill their duties, and regularly conduct technical exchanges and equipment maintenance to maximize the effectiveness of new technologies and equipment, guaranteeing safe program broadcasting.

3.3 Reduce Regional Disparities and Enhance Management of High-Tech Applications

Radio and television units across various regions should actively respond to national policy calls and strengthen scientific management of safe broadcasting technology. In addition to improving comprehensive management levels across departments, senior leadership must also cultivate modern technical management talent teams. By introducing and applying advanced safe broadcasting technologies and equipment and organizing technical management personnel to learn high-tech applications, units can continuously improve their safe broadcasting levels and narrow gaps with other regional units. Broadcasting units should integrate the latest communication technologies with modern information methods and skills to form a new broadcasting transmission structure that converges various media technologies. This will enable audiences to watch high-quality television programs and provide solid guarantees for the healthy development of broadcasting. An effective green and civilized broadcasting system should be established to eliminate harmful programs.

Conclusion

In summary, to ensure safe broadcasting of programs and enable audiences to watch high-quality content, radio and television units must attach great importance to safe broadcasting technical management. They should actively introduce and apply various high-tech technologies and management equipment, establish a scientific and comprehensive technical management system, and improve the overall level and quality of technical personnel. Only in this way can safe radio and television broadcasting be guaranteed.

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Note: Figure translations are in progress. See original paper for figures.

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