

ANALYSIS OF FOREIGN EXPERIENCE OF LAW ENFORCEMENT STRUCTURES IN THE FIELD OF PREVENTING THE ILLEGAL TRAFFICKING OF PYROTECHNIC PRODUCTS



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Abstract. The article provides a comparative analysis of international legal norms, as well as the practice and legislation of a number of leading foreign countries regarding this issue. The author has studied some examples from the practice of law enforcement agencies of such developed states as the USA, Canada, Germany, France, Great Britain, China, Australia, Russia, and others. At the same time, special attention is paid to legislative measures, methods of control and supervision, as well as interaction with international organizations and the private sector; recommendations are formulated for their improvement and adaptation to the conditions of the Republic of Uzbekistan, in order to increase the effectiveness of combating the illegal circulation of pyrotechnic products and ensuring public safety.

Keywords: public safety, pyrotechnics, pyrotechnic products, pyrotechnic composition, pyrotechnic products, classification of pyrotechnic products.

HUQUQNI MUHOFAZA QILISH TUZILMALARINING PIROTEXNIKA BUYUMLARINING QONUNGA XILOF MUOMALASINING OLDINI OLISH SOHASIDAGI XORIJIY TAJRIBA TAHLILI

Annotatsiya. Ushbu maqolada xalqaro huquqiy normalar, shuningdek, bir qator rivojlangan xorijiy davlatlarning mazkur masala bo'yicha amaliyoti va qonunchiligi taqqoslanadi. Muallif AQSH, Kanada, Germaniya, Fransiya, Buyuk Britaniya, Xitoy, Avstraliya, Rossiya va boshqa rivojlangan davlatlarning huquqni muhofaza qiluvchi organlari amaliyotini o'rgangan. Shu bilan birga, qonunchilik choralari, nazorat usullari, xalqaro tashkilotlar va xususiy sektor bilan hamkorlikka alohida e'tibor qaratilgan, pirotexnika mahsulotlarining qonunga xilof muomalasiga qarshi kurashning samaradorligini oshirish va jamoat xavfsizligini ta'minlash maqsadida ularni takomillashtirish va O'zbekiston Respublikasi sharoitiga moslashtirish bo'yicha tavsiyalar ishlab chiqilgan.

Kalit so'zlar: jamoat xavfsizligi, pirotexnika, pirotexnika buyumlari, pirotexnika tarkibi, pirotexnika mahsulotlari, pirotexnika buyumlari tasnifi.

АНАЛИЗ ЗАРУБЕЖНОГО ОПЫТА ПРАВООХРАНИТЕЛЬНЫХ СТРУКТУР В СФЕРЕ ПРЕДУПРЕЖДЕНИЯ НЕЗАКОННОГО ОБОРОТА ПИРОТЕХНИЧЕСКИХ ИЗДЕЛИЙ

Аннотация: В статье проведен сравнительный анализ международных правовых норм, а также практики и законодательства ряда передовых зарубежных стран относительно данного вопроса. Автор изучил некоторые примеры из практики правоохранительных структур таких развитых

государств, как США, Канада, Германия, Франция, Великобритания, Китай, Австралия, Россия и др. При этом, особое внимание уделено законодательным мерам, методам контроля и надзора, а также взаимодействию с международными организациями и частным сектором, сформированы рекомендации по их улучшению и адаптации к условиям Республики Узбекистан, в целях повышения эффективности борьбы с незаконным оборотом пиротехнических изделий и обеспечения общественной безопасности.

Ключевые слова: общественная безопасность, пиротехника, пиротехнические изделия, пиротехнический состав, пиротехническая продукция, классификации пиротехнических изделий.

Introduction / Kirish

The analysis of foreign experience of law enforcement structures in the field of preventing the illegal trafficking of pyrotechnic products represents an important area of research (particularly of scientific and practical interest) for domestic law enforcement agencies.

In the context of modern globalization and the increasing volume of international trade, the illegal trafficking of pyrotechnic products is becoming an increasingly pressing issue for public safety, law and order, and the environment. To take effective measures to prevent this negative phenomenon, it is appropriate in this study to consider the foreign experience of law enforcement structures in developed countries such as the USA, Canada, Germany, France, the United Kingdom, China, Australia, and the Russian Federation, among others.

Literature Review/ Mavzuga oid adabiyotlar tahlili

Studying international experience allows us not only to compare various approaches and strategies from other countries but also to identify best practices that can be adapted and applied in the Republic of Uzbekistan. This is especially important in the context of developing and improving national legislation and regulatory mechanisms aimed at preventing the illegal trafficking of pyrotechnic products.

When analyzing the foreign experience of law enforcement structures in the field of preventing illegal trafficking of pyrotechnic products, it is essential to note the conceptual differences in approaches to addressing the issue. Firstly, in most foreign countries, a mainly police and socially-oriented model for preventing illegal trafficking of pyrotechnic products has been adopted. Secondly, considering the traditions and culture of social-political life, the illegal pyrotechnics market in some foreign countries is not always viewed as a crime; however, violent manifestations associated with it are always classified as criminal acts.

Methods / Tadqiqot metodologiyasi

In foreign countries, the issues of policy regarding pyrotechnic products have been addressed at various times by scholars and researchers such as G.Braun [1], S.P.Kraus [2], S.Egan [3], K.Lannan [4], M.Finnegan [5], F.Shyong [6], C.Dempsey [7], H.O.Andradottir, T.Thorsteinsson [8], M.R.Sijimol, M.Mohan [9], L.Goines, L.Hagler [10], and others.

Most theorists, such as H. O. Andradottir and T. Thorsteinsson, believe that the policy of foreign states regarding pyrotechnic products has been significantly influenced by the situation concerning injuries and environmental pollution. However, there are also opinions like that of S. P. Kraus, who acknowledges the foresighted and wise policies of certain states.

An analysis of global practices shows that the trafficking of pyrotechnic products does not always pose a particular concern for some countries, although it is a highly risky endeavor. Critics and advocates of safety point to numerous injuries and fires as arguments justifying a ban or, at the very least, strict limitations on access to pyrotechnic products. Complaints about excessive noise created

by pyrotechnics, as well as the large amount of debris left after use, support this position. As a result, in some countries, the production and use of pyrotechnic products have been subjected to legal prohibitions motivated by a desire to protect users from harming themselves and others. These bans have led to tax evasion, illegal sales, and criminal sanctions.

According to some estimates, the annual damage caused by pyrotechnic products amounts to hundreds of millions or even billions of dollars. P. Chaparro-Narváez, K. Cotes-Cantillo, and others note that the USA has spent millions of dollars fighting the illegal trafficking of pyrotechnic products; however, the number of calls to emergency medical services for injuries from pyrotechnic use is approximately three times higher than calls related to drug use. The trend toward the liberalization of laws on pyrotechnic products is not universal across all countries. For example, in 2001, Colombia tightened regulations on the use of pyrotechnic products.

In some countries where the trafficking of pyrotechnic products has been banned or restricted, the harm associated with their use has decreased, while it has increased in places where such bans have been lifted. Therefore, from a public health perspective, bans on pyrotechnic products can be considered "effective," but not sufficiently so to be applied universally.

Consequently, debates about the policy regulating the production and use of pyrotechnic products are ongoing, with a fundamental question concerning "legalization," specifically whether the production, distribution, and/or use of pyrotechnic products should be banned.

J. P. Caulkins, K. Vaia, and S. Riemer [12] note that laws regarding pyrotechnic products primarily fall into two categories: those that allow any adult to purchase and use "safe" products, and those that permit the use of "dangerous" products only under professional supervision.

An interesting fact is presented by R. P. L. Wisse, W. R. Bijlsma, and J. S. Stilma (2010) [13], who point out that at the international level, the policies of countries that adopt a prohibitive stance towards pyrotechnic products differ from what might be expected based on their policies regarding, for example, drugs. For instance, Australia and the Netherlands have a rather liberal policy towards drugs but maintain a strict stance on pyrotechnic products, similar to countries like Ireland and Hungary. R. P. L. Wisse conducted a systematic review of 26 articles in the literature on eye injuries from pyrotechnic products and concludes that "in restrictive countries, there are 87% fewer ophthalmological injuries from pyrotechnic products."

Results / Tahlil va natijalar

Analysis of scientific research related to bans and restrictions on pyrotechnic products indicates the presence of three periods: the "prohibitive," "permissive," and "liberal" periods.

The prohibitive period refers to the 1950s and 1960s, documenting the prevalence of injuries associated with pyrotechnic products and providing certain arguments for stricter limitations. As a result, during the 1960s and 1970s, regulations concerning the trafficking of pyrotechnic products became more stringent; however, there was no convincing evidence of the consequences of the bans, as the data primarily came from the period "before" the imposition of bans. Proponents of this direction, such as L. R. Berger, S. Kalishman, and F. P. Rivara [14], also note that in countries with bans, there are fewer injuries from pyrotechnic products.

The permissive period is associated with the struggle against the repeal or limitation of controls over pyrotechnic products. During this period, arguments for regulating pyrotechnic products were presented, indicating some parallels with the legalization of drugs. A proponent of this theory, R. S. Wilson (1982) [15], actively opposed the introduction of bans on domestic or consumer pyrotechnic products, arguing that countries with more lenient regulations on fireworks experienced fewer injuries. Supporting this viewpoint, L. R. Berger, S. Kalishman, and F. P. Rivara [16] noted that

restrictive and prohibitive laws lead to an increase in injuries since illegal products are even more dangerous.

The liberal period (legalization) includes studies dedicated to the liberalization of legislation regarding pyrotechnic products. Among them, works by scholars such as Dj.S. Rosler, X. Dey [17.; pp. 46–47], T.M. Rudisill, K. Preambula, K. Pilkerton [18.; pp. 137], Goggans, S.S. Shaftel, C.S.Chang [19.; pp. 806–809], K. Galet (2022) [20.; pp. 553–559]. Представитель данного периода S.Bitter [21], found that during the liberalization period from 2008 to 2017, there was a sharp increase in the number of injuries from pyrotechnic products.

C. Chen, L. Jiang, W. Liu, and H. Sun (2022) [22] concluded that moderate regulations do not benefit the environment; conversely, strict regulations lead to an 8% reduction in the concentration of particulate matter in the environment during festive months, thereby improving public health by decreasing respiratory and cardiovascular diseases.

Overall, it can be said that the experiences of different countries regarding the regulation of pyrotechnic products vary significantly in certain aspects. Therefore, there is currently a trend toward expanding international cooperation in the unification of norms.

Given the above, it seems appropriate to examine the experiences of some foreign countries to identify effective approaches, methods, and strategies that can be applied to improve the national approach to this issue.

In the **United States**, the regulation of pyrotechnic products is carried out at both federal and local levels. Federal agencies such as the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) [23], the Consumer Product Safety Commission (CPSC), and the National Fire Protection Association (NFPA) have general jurisdiction over the production and distribution of pyrotechnic products. U.S. laws require special licenses and compliance with safety standards. Providing hazardous fireworks to a minor is a criminal offense under Section 12702 of the Health and Safety Code. Violators can be sentenced to up to one year in prison and fined up to one thousand dollars. The pyrotechnics will be confiscated, and the offender may be required to complete a fire safety course. If the accused is charged with possessing more than 100 pounds of hazardous pyrotechnic products, they may face felony charges. A felony charge can result in a fine of up to \$50,000 and imprisonment for up to three years [24]. The current Federal Explosives Law (Federal regulations at 27 CFR § 555.109) [25] states that storing or selling any pyrotechnic products without the appropriate ATF license or permit is a felony punishable by up to five years in prison. Key measures of state control include licensing and certification, regular inspections of storage and manufacturing facilities for compliance with safety standards, public information on risks, and cooperation with local and state police.

In neighboring **Canada**, the Explosives Act and the Explosives Regulations, 2013 [26], regulate activities related to explosives. According to these documents, individuals under the age of 18 are strictly prohibited from launching pyrotechnic products under any circumstances [27]. In addition to federal laws, the trafficking of pyrotechnic products is regulated by provincial and municipal laws. At the federal level, the Ministry of Natural Resources, Health Canada, and the Canadian Food Inspection Agency oversee the import, export, and sale of pyrotechnics. Illegal trafficking of pyrotechnic products can result in fines of up to \$10,000 and/or arrest for up to six months or imprisonment for up to 12 months. Key measures of state control include strict licensing and certification rules, import and export restrictions, prohibited zones and designated usage periods, cooperation with customs and border services using shared databases and information exchange systems, joint patrols and inspections, public information on risks and legal consequences of using

illegal pyrotechnics, use of modern surveillance systems, tracking systems, and analytical programs to identify and prevent violations, implementation of electronic reporting and licensing systems, and the development of mobile applications and hotlines for citizen inquiries.

The **European Union** has developed a distinctive system for preventing the illegal trafficking of pyrotechnic products, which consists of directives on pyrotechnic products, EN15947 [28] certification, and the CE EN15947 safety standard for pyrotechnic products. According to EU policy, “imported pyrotechnic products can only be CE certified if they comply with the EN15947 requirements.” The policy regarding pyrotechnic products aims to harmonize and standardize the policies of EU member states. In 2007, the EU adopted the Directive on Pyrotechnic Products [29], and on June 12, 2013, a new Directive on Pyrotechnic Products [30] was adopted. Since 2010, safety testing for pyrotechnic products has been required throughout the Union. Pyrotechnic products in the EU are divided into four categories: Category F1 – fireworks representing very low danger and intended for indoor use (minimum age is 12 years); Category F2 – fireworks presenting no significant danger and intended for outdoor use in confined spaces (minimum age is 16 years); Category F3 – fireworks representing medium danger and intended for outdoor use in large open areas (minimum age is 18 years); Category F4 – fireworks for professional use, representing serious danger (intended exclusively for individuals with special knowledge).

The EU rules regarding pyrotechnic products are minimum standards for all member states, so some countries enact their own laws with additional restrictions. For example, in **Germany**, the Explosives Act requires special licenses [31], yet individuals over 18 can purchase fireworks without a license only three days a year – December 30, 31, and January 1 [32]. The sale of pyrotechnic products is strictly controlled by the Federal Police, Customs Control Agency, and the Federal Office for Civil Protection and Disaster Assistance (BBK). Smuggling illegal pyrotechnic products in Germany is subject to criminal liability, with such offenses punishable by imprisonment for up to three years [33]. Additionally, smugglers may face hefty fines of up to 50,000 euros [34].

The powers of law enforcement agencies include mandatory classification of pyrotechnic products, conducting active inspections of shops and market points, mandatory testing and certification for compliance with safety standards, and public information campaigns.

Law enforcement agencies in **France** (Police nationale, Gendarmerie nationale, Direction nationale du renseignement et des enquêtes douanières, etc.) periodically conduct operational activities, impose bans on the sale of pyrotechnic products, systematically check vehicles in border departments, and monitor websites and social media where such products are sold [35]. They also actively use social media and information campaigns. France has a strict legislative framework regulating the circulation of pyrotechnic products, which prohibits the sale, possession, and transportation of pyrotechnics for individuals starting from 2024 [36]. The legislation imposes severe penalties for violations of these rules, serving as an important deterrent factor. The powers of law enforcement agencies include: licensing and certification, which allows for the quality control of products and prevents the entry of low-quality and dangerous items into the market; regular inspections of manufacturers and retail points to ensure compliance with all norms and regulations. These inspections include both documentary checks and physical examinations of products and their storage conditions; tightening border control measures using modern technologies such as scanners and various detectors to more effectively identify attempts to illegally import pyrotechnics; conducting transnational operations (information exchange and coordination of actions); and explaining legislative requirements and potential dangers in schools and other educational institutions.

In the **United Kingdom**, pyrotechnic products are divided into three separate categories, and individuals under 18 years of age are prohibited from selling or using them in public places. To obtain a license, one must undergo training through the British Pyrotechnics Association and its programs. There is a licensing system for pyrotechnic sellers and age restrictions for buyers. The sale and use of pyrotechnic products are regulated by the Fireworks Regulations 2004. Violating these norms can lead to severe fines and imprisonment. Regulation of pyrotechnic products is carried out by several organizations, including the Police, Fire Services [37], and the Health and Safety Executive (HSE). Penalties may include fines or imprisonment for up to two years.

The experience of the **Republic of Ireland** is particularly interesting, as it is one of the countries in the world (along with **Chile**) that has strict regulations. The Explosives Act was adopted as early as 1875 [38]. Subsequent amendments were made only to tighten the requirements. Until 2006, the country's legislation was somewhat vague and did not foresee explicit crimes related to the possession or explosion of pyrotechnic products. As a result, illegal sales of pyrotechnics became common, and a huge black market for pyrotechnics emerged in the country. For this reason, in 2006, the government decided to introduce strict rules and penalties for the import, possession, sale, or use of any pyrotechnic products without a license. If you are caught engaging in any of these actions, you may be fined up to 2,500 euros or even imprisoned for six months. The implementation of EU requirements in 2010 somewhat softened the country's approach to pyrotechnic products. In particular, pyrotechnic products were allowed to be sold to individuals over 16 years old. Special licenses for launching pyrotechnic products are issued in the country. The import, possession, sale, or use of any fireworks without a license is illegal. The Garda (National Police Service/Security Service of Ireland) has broad powers to investigate these crimes. The police can search a person without a warrant and detain them for the time necessary to conduct the search, enter and search any vehicle, vessel, or aircraft without a warrant if there is suspicion that pyrotechnics may be found. If a person is found guilty of any of the aforementioned crimes, they may face a Class C fine or imprisonment for up to six months, or both.

In the case of a conviction on an indictment, the individual faces a maximum fine of 10,000 euros or imprisonment for up to five years, or both. This makes Ireland one of the strictest countries in the world when it comes to consumer fireworks [39].

In **Estonia**, the explosives operator, manufacturer of pyrotechnic products, and importer must ensure traceability (through product identification and record-keeping) of the explosives and pyrotechnic products they work with. The national authority overseeing the handling of explosives and pyrotechnic products is the Consumer Protection and Technical Regulatory Authority, additionally supervised by the Police and Border Guard, the Rescue Department, and the Tax and Customs Board. According to § 22 (2) of the Explosives Act [40], the Consumer Protection and Technical Regulatory Authority (or, in its absence, the Estonian Mining Association) issues special qualifications for "pyrotechnicians." Pyrotechnic products of categories F4 and T2 can only be used by a pyrotechnic operator. A special permit and operational license are required to organize fireworks.

Sweden introduced a ban on firecrackers back in 2002, and in 2014, a ban on heavier rockets was enacted. Since June 1, 2019, rockets must be launched using "control joysticks," and anyone purchasing and igniting rockets must complete a special training course organized by municipalities to obtain a permit. Illegal importation and online sales of fireworks have become particular problems under these regulations [41].

In **Australia**, the Explosives Act regulates the production, import, export, storage, and use of pyrotechnic products. The import of pyrotechnics is strictly controlled by the Australian Border Force (ABF). Key measures to combat illegal activities include: border control using various technologies,

including X-ray machines and explosives detection systems; the police in states and territories conduct regular raids and inspections of places where illegal pyrotechnics may be stored or sold, and there is constant monitoring of online resources and social media to detect illegal offers for the sale of pyrotechnics; interagency groups have been established that include the police, border force, and occupational safety agencies. Australia actively collaborates with foreign law enforcement agencies and international organizations, such as Interpol, to identify and dismantle international channels for the supply of illegal pyrotechnics.

China has significant experience in preventing the illegal trade of pyrotechnic products. A comprehensive approach is used in the fight against illegal pyrotechnics, combining legislative, preventive, technical measures, and international cooperation. China has established strict laws regulating the production, sale, and use of pyrotechnic products (for import and export). The state holds a 100% monopoly on organizing pyrotechnic shows, with the distribution of fireworks to the public being controlled by the government and strictly limited. In 444 cities in China, the use of pyrotechnics is completely prohibited [42]. Citizens are legally barred from "storing, distributing, and using" pyrotechnic products [43]. Key legislative acts regulating control in the field of pyrotechnic circulation include the Product Safety Law, the Explosives Law, the Air Pollution Prevention Law, and Fire Safety Regulations, which impose severe fines and criminal liability for violations of pyrotechnic regulations. Police, customs authorities, and the State Administration of Work Safety (SAWS) regularly conduct inspections of manufacturers and retail outlets using modern technologies, including X-ray machines and cargo tracking systems. Key government control measures include: licensing and certification (the licensing process involves a thorough safety standards compliance check for all enterprises engaged in pyrotechnic production); law enforcement agencies regularly inspect manufacturers and retail points; police and other interested parties actively use media and social networks to disseminate information about the risks and liabilities associated with illegal handling of pyrotechnics; specialized police units focused solely on controlling and combating illegal pyrotechnics have been established in major cities and industrial centers; systems for video surveillance and artificial intelligence are also actively used for big data analysis. China cooperates with other countries in information exchange by conducting international conferences and seminars to discuss the latest methods and technologies for combating illegal trade in pyrotechnic products.

In the **Russian Federation**, until recently, it was permissible to sell and use household pyrotechnic products year-round, provided that public order was maintained and federal laws such as "On Licensing Certain Types of Activities," "On Fire Safety," and the Technical Regulation of the Customs Union "On the Safety of Pyrotechnic Products," as well as regional laws "On Silence," were not violated. However, starting from January 2021, following the adoption of the Government Resolution of the Russian Federation "On Approval of Fire Safety Rules in the Russian Federation," [44] the use of pyrotechnic products in residential premises has been strictly prohibited. Beginning in 2022, a complete ban on pyrotechnic products was introduced in the western regions of Russia (bordering Ukraine). Violations of the rules for accounting, storage, transportation, and use of pyrotechnic products are subject to criminal liability, forced labor for up to five years, with disqualification from holding certain positions or engaging in specific activities for up to three years or without such, or imprisonment for up to five years (Article 218 of the Criminal Code of the Russian Federation). The sale of pyrotechnic products is strictly controlled by the Police, National Guard, Federal Security Service, Ministry of Emergency Situations, and Customs Authorities. Their powers include conducting raids and inspections of trading places; monitoring compliance with licensing and

certification requirements; suppressing illegal production and sale; informing the public about the rules for safe handling of pyrotechnics and the consequences of violations; conducting educational programs in schools, social advertising, press releases, and informational campaigns in the media. To enhance the effectiveness of law enforcement agencies, modern technical means such as video surveillance and monitoring systems, as well as special courses and training for personnel that include training in methods of detecting and suppressing illegal activities, are used.

Conclusions / Xulosa va takliflar

Thus, the following conclusions can be drawn:

1. The experience of foreign law enforcement agencies in preventing the illegal trade of pyrotechnic products demonstrates a comprehensive approach that includes legislative, operational, organizational, technical, and educational measures.

2. The legislation of foreign countries generally provides for strict measures and responsibility for illegal trade in pyrotechnic products; however, there are also countries with more lenient laws regarding pyrotechnics, which ultimately leads to a significant increase in injuries and crimes in those countries due to the legalization of the illegal trade of pyrotechnic products.

3. The experience of foreign countries shows that an effective prevention of illegal trade in pyrotechnics requires a comprehensive approach, with key elements including a strict legislative framework, effective control and oversight measures, active public awareness, and international cooperation. Such measures not only minimize the risks associated with illegal activities but also enhance overall public safety.

At the same time, pyrotechnic products are goods that pose harm to a considerable number of their users, which is why, at various times, the governments of different countries prohibit their purchase and use. These bans fluctuate over time, becoming stricter or more lenient, and vary by country.

Considering the analysis of foreign practices, it is proposed:

1. In light of the sharp increase in the use of the Internet and social media communications (since this issue spans various language audiences and national jurisdictions), it is suggested that special Internet monitoring groups be created within the Internal Affairs bodies and the National Guard of the Republic of Uzbekistan with the following tasks: coordinating and exchanging information with law enforcement agencies on identifying criminal and illegal propaganda internet content; swiftly and effectively identifying prohibited internet content in close cooperation with telecommunications operators and information resource owners; supporting law enforcement by providing strategic and operational analysis.

2. Countering the financing of illegal trade in pyrotechnic products and associated criminal organizations is perhaps one of the most challenging issues for any socio-economic system. It is necessary to utilize various tools to identify illegal funding sources for the trade in pyrotechnic products. As one of the most effective mechanisms, it is proposed to create a transnational Program for Tracking Criminal Financial Assets of individuals and groups engaged in the illegal trade of pyrotechnics.

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