



EU-High Level Scientific International Conference on Physical Protection  
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## Physical protection educational program - information security aspects

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### ABSTRACT

Conceptual approaches for designing an expert training program on object physical protection taking into account information security aspects are examined. A special educational course does not only address the immediate needs for an educational support but also ensures that new professionals include new concepts and knowledge in their practice and encourages current practitioners towards such practice. Features of the modern physical protection systems (PPS) and classification of information circulating at them are pointed out. The requirements to the PPS information protection subsystem are discussed.

During the PPS expert training on information security (IS) aspects they should receive certain knowledge, on the basis of which they could competently define and carry out the PPS IS policy for a certain object. Thus, it is important to consider minimally necessary volume of knowledge taught to the PPS experts for independent and competent implementation of the above listed tasks.

For the graduate PPS IS expert training it is also necessary to examine the normative and legal acts devoted to IS as a whole and the PPS IS in particular. It is caused by necessity of conformity of methods and information protection tools implemented on a certain object to the federal and departmental IS requirements. The departmental normative IS requirements define an orientation of the PPS expert training. By curriculum development it is necessary to precisely determine for whom the PPS experts are taught. The curriculum should reflect common features of the PPS functioning of the certain object type, i.e. it should be adapted to a certain customer of the experts.

The specified features were taken into account by development of an educational course "Information security of the nuclear facility physical protection systems", taught at the Moscow Engineering Physics Institute (State University) according to the Russian-American educational program "Master in Physical Protection, Control and Accountability of Nuclear Materials".



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There is a list of the educational course topics:

1. Tasks of the educational course, its structure, brief contents and forms of progress testing. The review of used concepts and definitions ✓
2. Substantiation, preconditions and necessity of IS maintenance of a nuclear facility (NF) PPS. The basic purposes and tasks of NF PPS IS maintenance. Consequences of IS violation ✓
3. Definition of NF PPS IS policy. The factors determining IS policy ✓
4. Feature of the NF PPS functioning ✓
5. Classification of information circulating at the NF PPS ✓
6. NF PPS IS threat classification ✓
7. Model of a probable adversary ✓
8. NF IS maintenance measures ✓
9. The PPS IPS for the NF ✓
10. Information protection methods and tools for the NF. ✓

The normative documents of the Atomic Energy Ministry of the Russia concerning NF PPS IS.