

REPORT OF THE FINAL WORKSHOP

Project on “Assistance to raising knowledge on industrial safety at universities in Armenia”

Introduction

1. The final workshop in the project on “Assistance to raising knowledge on industrial safety at universities in Armenia” was held in Yerevan on 26 March 2013. The project implementing organization was "Eco Peace" scientific, ecological NGO from Armenia.
2. The leading authorities for conducting the exercise were (a) “Eco-Peace” NGO from Armenia and (b) the Federal Environmental Agency from Germany.
3. This project was funded by the German Federal Ministry of Environment, Nature Conservation and Nuclear Safety with means of Advisory Assistance Program for Environmental Protections in the Countries of Central and Eastern Europe, the Caucasus and Central Asia. It is technically supervised by the German Federal Environmental Agency (Umweltbundesamt, UBA).
4. The implementation of the project has been agreed with the UN/ECE Convention on the Transboundary Effects of Industrial Accidents. The project implementation in Armenia is supported by the RA Ministry of Nature Protection and the Ministry of Emergency Situations as well as by the Armenian State Engineering University and the Yerevan State University of Architecture and Construction, which were selected as the model educational institutions for the project.

I. OBJECTIVES

5. The objectives of the workshop and the exercise were to discuss:
 - a) the activities implemented under the project, the project outcomes;
 - b) Safety of industrial processes in Armenia, assessment of emergency hazards, emergency prevention and control in EECCA countries;
 - c) Making industrial safety compliant to recognized international standards, and with application of national laws and regulations;
 - d) Enriching the professional knowledge of students of technical universities, increasing the level of education and exchange of experience in the field.
 - e) Developing and strengthening cooperation between universities in UNECE countries;
 - f) Need for further activities, projects, possible cooperation.

II. PARTICIPATION

6. The representatives of the following countries participated to the workshop:
 - **Armenia** (as the organizers of the events) - representatives from Ministries of Nature Protection, Emergency Situations, Health, Education and Science RA, Universities, international and non-governmental organizations, industrial enterprises;
 - **Germany** (as the funding organization of the project) - Federal Environmental Agency (UBA);

- *Czech Republic* - VSB - Technical University of Ostrava;
- *Romania* - Babes Bolyai University;
- *Russian Federation* - Kaliningrad State Technical university, Perm National Research Polytechnic University;
- *Republic of Belarus* - The State Educational Establishment “Command and Engineering Institute” of the Ministry for Emergency Situations of the Republic of Belarus;
- *Republic of Moldova* - State Hydrometeorological Service;
- *Uzbekistan* - Namangan State University;
- *Tajikistan* - Khujand Polytechnical Institute Tajik Technical University.

III. WORKSHOP AND ITS PROGRAMME

Opening and welcoming address setting the scene

7. The workshop was opened by Ms. Anahit Aleksandryan, Ministry of Nature Protection RA (head of division of hazardous substances and waste policy), Mr. Karapet Karapetyan, Ministry of Emergency Situation RA (chief of department of Industrial Accidents, Radiation, and Chemical Protection), Mr. Gerhard Winkelmann-Oei, German Federal Environmental Agency.

Programme of the workshop

8. The information about workshop is given on the Convention’s website <http://www.unece.org/env/teia/mtgs/Yerevan2013>
9. The workshop was divided into 4 sessions:

Session I	Project activity in Armenia, project results;
Session II	Organization of the educational process in the field of industrial safety in EECCA - countries;
Session III	Approaches to provision of industrial safety in EU countries;
Session IV	Discussion and wrap-up
10. After the opening, the project manager Kristine Sahakyan presented the activities and the outcomes obtained within the framework of the project. She presented also the official letters issued by the project participating universities and industrial enterprises on application of the check-list methodology and their possible further application within the project.
11. The details of the theoretical and practical training courses organized within the Project for students were presented by the students participating in the project. Total 6 students from the 3 project participant universities (YSUAC, SEUA, CSMA) represented the course of the theoretical training, details on their training and production practice in 5 industrial enterprises and the results of the studies and assessments implemented there by the check-list methodology.
12. The results of the studies implemented by the check-list methodology were quite interesting and they were highly appreciated by all participants. They emphasized the importance of such a methodology as a study tool in educational institutions (including vocational training institutions), as well as in public monitoring processes.

13. The following representatives from EECCA countries represented speeches on organization of the educational process in the field of industrial safety and representatives from EU about approaches to provision of industrial safety in EU countries.

- Risk Management Courses for different categories of citizens in the Republic of Moldova;
- Organization of the educational process in the field of industrial safety in Belarus;
- System of preparation of industrial safety specialists in Kaliningrad Technical State University;
- Preparation of specialists on "Techno-sphere Safety" in Perm National Research Polytechnic University;
- Innovative activity of Namangan State University,
- The view of Khujand Polytechnic Institute on the activity in the field of industrial safety,
- The Romanian education in technological risk assessment and disaster management in the frame of Seveso Directive,
- Principles of risk analysis and management in the context of industrial accidents.

IV. CONCLUSIONS

14. The workshop and its presentations led to discussing on the activities implemented under the project, the project outcomes, further processes and possible cooperation in the field of university-level education on industrial safety.

15. The participants presented a series of justified proposals on the discussed topics, which were addressed to universities, regulation authorities, collaborative NGOs and donor organizations.

16. The participants represented the following proposals on the discussed topics:

- **Safety of industrial processes in Armenia, assessment of emergency hazards, emergency prevention and control in EECCA countries**

Addressed to Regulation authorities

- Integrate the tools implemented by the project in the safety assessment process of industrial operators,

***Justification:** The assessment of major emergency hazards, their prevention or control requires that certain measures be taken. Systemic, integrated and effective methods of analysis are needed to prioritize these measures. A check-list can be a useful tool for the carrying out of such large-scale studies. The application of a checklist may allow the assessment of the level of hazard at a given enterprise, establish the necessary technical and organizational short-, medium- and long-term measures, and so reduce the possible environmental risks threatening water resources (including transboundary waters).*

Addressed to Universities

- Provide training on a wider spectrum of safety related topics (starting from the check-list methodology) in order to achieve a higher level of expertise in the field of industrial safety.

Addressed to collaborative NGOs

- Disseminate this initiative, methodology and best-practice package on a wider scale, through campaigns, workshops, trainings etc. in order to raise awareness about industrial safety within the general population. Focus on prevention, preparedness, awareness as keywords.

Justification: *The public sector's role, raising the level of awareness among various segments of society and the need for public monitoring is important in the processes implemented in the sector. This methodology or similar studying tools can also be applied in the public monitoring process.*

- **Making industrial safety compliant to recognized international standards, and with application of national laws and regulations**

Addressed to Regulation authorities

Adaptation of the check-list methodology to the current national standards, including:

- Standardization of the used methodology
- Introduction of the check-list methodology in risk assessment procedures
- Development and approval of the guidelines on the application of checklist methodology at the relevant national agency/ministry.

Justification: *This process also contributes to the implementation of provisions of the 1992 Helsinki Convention on the Transboundary Effects of Industrial Accidents in Armenia and EECCA countries. In case of such an approach application of the check-list package as an integral part of the environmental audit process is possible, the results of which can be used by the industrial operator as an investment plan, and by government agencies as a catalogue of or guideline to legal requirements.*

- **Enriching the professional knowledge of students of technical universities, increasing the level of education and exchange of experience in the field**

Addressed to Universities

- Inclusion of a check-list methodology in the curricula of corresponding specialized departments of technical universities (including vocational training institutions) and their application during practical training.

Justification: *Possible application of such a methodology in the educational process will allow raising public awareness and more efficiently organizing the practical experience of students. Such an approach will allow more efficient organization of practical courses for students, thus producing more competent specialists before their employment in industry, as well as presenting brief information on the whole industrial process. Such an approach will provide new professional knowledge and experience acquired in the field, promoting the process of education sector reform and the preparation of highly-qualified specialists.*

- **Developing and strengthening cooperation between universities in UNECE countries**

Addressed to Universities and donor organization

- Promotion and development of interuniversity cooperation in UNECE countries, in particular in partnership with relevant professional departments of technical universities:
 - development of joint diploma theses,
 - organization of training and production practice or study tours at the industrial enterprises abroad,
 - organization of summer schools with participation of students of the universities in other countries,

- Implementation of joint projects between universities in different countries (including student exchange program).
- Implementation of integration activities for harmonization of educational programs in the field of risk management, in particular:
 - exchange of experience among the lecturers, organizing regular lectures by invited lecturers from other countries,
 - organization of works aimed at development and harmonization of joint academic programs,

Justification: *Since industrial safety issues are an important component in the environmental development of the economy of any country, the exchange of experience and continuous enriching of knowledge in the area is necessary. This should be reflected in the curricula of technical universities. This will promote cooperation between countries, enriching of lecturers' and students' knowledge and experience exchange.*

➤ **Need for further activities, projects, possible cooperation**

Addressed to donor organization

- Implementation of such a project in Armenia, as an example for other UNECE countries.
- Implementation of continuous activities in the field, with involvement of international donor organizations, giving preference to bilateral and multilateral projects that will promote cooperation and exchange of experience between countries.
- Taking into account the problems revealed and the solutions proposed during implementation of corresponding projects and obtaining support from the part of governmental agencies.

Justification: *Many former Soviet republics (Ukraine, Republic of Moldova, Russian Federation, Georgia, etc.), are also participating in the Bologna Process (which aims to ensure comparability in the standards and quality of higher education qualifications) and are implementing education sector reforms. The countries of Eastern Europe, the Caucasus and Central Asia have many environmental problems in common, among which industrial safety issues can be emphasized. Therefore, any positive result and experience addressing these common problems can serve as a model for other countries and might be applied by them.*

V. CLOSING

17. The president of “Eco Peace” NGO Kristine Sahakyan thanked the participants for their attention, professionalism and for the active contribution towards elaborating concrete conclusions and recommendations from the workshop.
18. Mr. Gerhard Winkelmann-Oei from German Federal Environmental Agency expressed the appreciation to the Armenian organizers, in particular to Ms. Kristine Sahakyan and her team for the good organization of the workshop and thanked the participants of all countries for their active involvement. He closed the meeting.