

# Petr Procházka

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Nationality: Czech  
Languages: English, Czech, German, Russian

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## PROFILE

Senior EHS professional with extensive experience in high hazards management in world-class facilities like the most powerful laser research facility (10 PW class) in the world (ELI Beamlines) and avian influenza vaccine production facility with unique technology (Baxter Healthcare). Communicative team player with ability to integrate EHS programs and safety systems into design and facility operation. Experienced in driving practical solutions for complex issues to achieve maximal efficiency of implemented EHS programs.

## KEY PROFESSIONAL AND MANAGERIAL STRENGTHS

- **System Safety and Safety Engineering:** Experience in system safety development, implementation and improvement. Experience in risk assessment (FMEA, HAZOP, FTA) in various phases of facility and technology lifecycle. Experience in safety configuration management. Extensive knowledge of safety and environmental protection requirements management. Knowledge of NASA and FAA System Safety Guidelines, and DOE guidelines and orders in various EHS fields.
- **Process safety management:** Experience in process safety in chemical, biotechnological and laser driven accelerator facilities.
- **High hazards management:** Extensive knowledge of managing high hazards in demanding environments (high power lasers, ionizing radiation, non-ionizing radiation – EMP, magnetic field, explosive atmospheres, cryogenic systems, engineered nanomaterials, chemicals etc.) such as those found at chemical, biotechnological, and laser driven accelerator facilities.
- **Safety systems and infrastructure:** Experience in requirements management, functional analysis, conceptual design, development, and implementation of safety systems such as personal safety interlock system or Fire & Gas (F&G) system, and monitoring system for ionizing radiation. Skills in systems integration to achieve optimal functionality.
- **Biosafety:** Extensive experience in biosafety (WHO, CDC BMBL etc.) in biotechnological and research facilities. Experience in BSL2, BSL3, and BSL3+ practices incl. waste management. Leadership of design development of BSL3 dedicated facility.
- **Chemical Safety:** Significant experience in management of chemical hazard. Outstanding toxicological background. Experienced in risk evaluation of newly introduced chemicals into process. Comprehensive knowledge of GHS system.
- **Drug free workplace system:** Experienced in creation and implementation of Drug Free Workplace programs in various industries (pharmaceutical, chemical etc.).
- **Team leadership:** Leadership of multinational teams of highly specialized safety engineering experts.

## PROJECTS

- **Personal Safety Interlocks** (ELI Beamlines, Leader –Development of the System Concept)
- **F&G Monitoring System for laser driven accelerator facility** (ELI Beamlines, Leader – Design Phase)
- **BSL3 dedicated facility for X-ray experiments** (ELI Beamlines, Designer – Design Phase)
- **Facility Automation System Upgrade** (Baxter Healthcare, Team Member – Design and Implementation Phase)
- **Production Technology Expansion** –Technological Project (Baxter Healthcare, Team Member – Design and Implementation)
- **BSL3 laboratories** – Construction Project (Baxter Healthcare, Team Member – Design Phase)
- **High Hazard Management Program** – Divisional Project (Baxter Healthcare, Team Member And Regional Owner Of System – Design, Implementation and Execution Phase)
- **Technology Transfer To Takeda Pharmaceutical In Hikari** – Construction and Technological Multi-corporate Project (Baxter Healthcare, Team Member And Regional Owner Of System – Design and Implementation Phase)
- **Optimization of Decontamination Technology** – Technological Project (Baxter Healthcare, Leader – Design and Implementation Phase)
- **EHS E-CAPA System Development** - (Baxter Healthcare, Author and Project Leader – Design, Implementation and Execution Phase)
- **Annual International Conference OEDM SERM** – Co-founder and Organizational Chair ([www.oedm-serm.org](http://www.oedm-serm.org))

## EDUCATION

- **Ph.D. (expected 2017):** Industrial Safety, Faculty of Safety Engineering, Technical University, Ostrava, Czech Rep.
- **Master of Science (2008):** Emergency Radiobiology and Toxicology, Faculty of Health and Social Studies, University of South Bohemia, České Budějovice, Czech Rep.
- **Bachelor of Science (2006):** Applied Radiobiology and Toxicology, Faculty of Health and Social Studies, University of South Bohemia, České Budějovice, Czech Rep.

## COURSES & TRAINING COMPLETE

- Certified Fire Protection Professional – Czech Republic (acquired 2013, does not expire)
- Certified Safety Professional – Czech Republic (re-certified 2014, valid until 2019)
- **Biosafety and Biosecurity Training Course** (July 2015, Fort Collins, CO, USA - Colorado State University)
- **BSL3 Facilities: Design, Construction and Beyond** (April 2013, Raleigh, NC, USA – Eagleson Institute)
- **Advanced BSL3 Work Practices and Procedures** (April 2013, Raleigh, NC, USA– Eagleson Institute)
- **Laser Safety Officer Course** (June 2015 – Laser Institute of America)
- Six Sigma Yellow belt (gained 2010)
- Methods of risk analysis in processes and systems (2012 - FBE)
- **HAZOP** (2011 - Abhisam)
- Machinery Safety (2011 - Webinar training)
- Functional Safety (2011 - Webinar training)
- IT Skills - MS Office (user level), Adobe Acrobat (user level), SAP R3 (user level), Teamcenter 9 (user level), ALOHA

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## CAREER HISTORY

Dec 2012 - Present

### **SAFETY MANAGER & SAFETY TEAM LEAD**

**ELI Beamlines, Institute of Physics Czech Academy of Science, Prague, Czech Rep - [PROJECT DETAILS](#)**

- Develop, implement and improve EHS strategy for the most significant scientific project in the Czech Republic with budget of \$300 Million.
- Drive and coordinate development of corporate level of EHS and user safety programs for future ELI ERIC operation (three ELI facilities with investment of approx. \$960 Million in the Czech Rep., Hungary and Romania).
- Supervise performance of EHS program of Hilase laser facility ([DETAILS](#)) to assure operational compliance with EHS regulations.
- Provide advisory service and assistance to design, technical and experimental teams in defining of operational budgets, modus operandi, and plans for commissioning, implementation, maintenance and operation.
- Carry out risk assessments, define controls and integrate EHS technical requirements to the design and operation of petawatt class femtosecond lasers, laser based accelerators and other technology to achieve full compliance with EHS regulations. Act as a facility Laser Safety Officer.
- Manage facility Environmental program, implement national and international legislative requirements into facility design and operation (e.g. radioactive and other hazardous waste management, cooling water handling, air conservation – toxic substances etc.), assess technical and project documentation, and define engineering controls to be designed to ensure full compliance with Environmental Protection codes.
- Create functional concept of safety systems that are crucial for the facility operation (e.g. Personal Safety Interlock System), and guide their integration into the facility concept.
- Create, establish and maintain Security system for the facility with respect to the value of installed and operated technology and purpose of the facility (user facility for world class experiments).
- Provide advisory support for design, import, implementation and operation of dual use technology.
- Establish and deliver training needs and offer standard and behavioral based coaching and mentoring to all levels of management and employees within the facility.
- Develop & ensure the competency of site teams in the identification and control of hazards & risks on location by actively engaging, influencing and persuade all operational and support functions to deliver an integrated, pragmatic approach to EHS.
- Manage multinational teams of highly specialized and internationally recognized safety engineering experts (safety, environmental protection, radiation safety, Monte Carlo simulations, security, and system analysis).

### **Main Achievements**

- Created conceptual design of dedicated BSL 1, 2 and 3 (biosafety level) facilities for X-ray biomedical experiments.
- Managed the delivery of results of groundwork for radiation shielding and activation studies to enable safe and flexible operation of the facility and comply with international and national radiation safety regulations.
- Delivered design of infectious wastewater handling system for BSL Labs, defined appropriate solid waste handling procedures for laboratory waste.
- Delivered design for gas handling system for experiments (flammable gases – H<sub>2</sub>, D<sub>2</sub>, H<sub>2</sub>S etc., and toxic gases – HCN, NH<sub>3</sub> etc.).
- Built internationally respected EHS team and expanded team competencies.

2010 - Present (Part Time)

**SAFETY ENGINEERING BUSINESS OWNER**

**SEI Company, Czech Republic** [MORE DETAILS](#)

- Provide leadership and direction to clients to ensure compliance with the applicable EHS laws and regulations and fulfilled adherence to statutory standards providing assurance to safety management systems, policies and procedures.
- Provide highly specialized safety service focused on handling with hazardous chemicals, biological agents and other hazardous materials. Provide case based studies and assessments on integration of technological parts to existing facilities. Perform environmental assessments with focus on water and air conservation.
- Conduct site inspections, method statements and hazard identification, ensure that corrective actions are adequate, ensure that investigation and reporting are implemented according to Client procedures.
- Carry out risk assessments to ensure that standards and legal requirements are consistent with international & national standards requirements, using Risk Assessment / Analysis Methodologies and raise non-compliances during Board meetings to various stakeholders.
- Identify and carry out training and development needs through job and schedule analysis and provide consultation with Managers and members of other client departments.
- Provide consultancy in EHS for projects with integration and operational challenges.

Aug2009 - Nov 2012

**SAFETY ENGINEER AND BIOSAFETY OFFICER**

**Baxter Healthcare, Jevany, Bohumil, Czech Rep** - [MORE DETAILS](#)

- Played an important role in EHS management of world-class biotechnological facility with novel technology for production pandemic vaccines, served as an EHS subject matter expert for biosafety, chemical safety, non-ionizing radiation safety and transportation of hazardous materials.
- Implemented corporate and divisional EHS standards and procedures to site EHS program, served as a site counterpart to corporate and divisional EHS management.
- Managed risk assessment studies for production technology, verified that all proposed controls were properly implemented, inspected technical and operational documentation to assure full compliance with international, national, and Company regulations and standards.
- Innovated facility biosafety program to enable effective utilization of production technology and facility for new products, transcribed improved biosafety program to other facility outside of corporation.
- Monitored construction sites in facility (new buildings, new technological assemblies) to ensure EHS compliance with applicable construction safety regulations and Company procedures, negotiated Company requirements with construction management and contractors.
- Managed Environmental program for entire facility, performed environmental impact assessments of newly installed technologies (e.g. H<sub>2</sub>S burning unit for wastewater neutralization station, wastewater treatment plant extension), and assessment of remediation works on old buildings (e.g. demolition of abandoned vaccine production facility).
- Investigated incidents to determine root causes, actions to be taken and measures necessary to prevent recurrence. Oversaw and reviewed all incident investigations and prepared statistics to assist in monitoring of EHS performance.
- Managed the development of consistent company training matrices, behavioral training programs and competency systems and ensure compliance was communicated to management and participated on the management reviews (site and divisional level).
- Established comprehensive contractor safety program with respect to corporate requirements, security and quality standards of the corporation.
- Cooperate on implementation, maintenance and improvement of EMS (ISO 14001) and SMS (OHSAS 18001) on site that led to successful recertification.
- Participated on inter-corporation (project of Baxter Healthcare and Takeda Pharmaceutical) and divisional project as a subject matter expert and regional system owner.
- Drove the continuous improvement in EHS performance, used 6σ tools to achieve the best practice in EHS.
- Coordinated security team and maintained security program of facility with respect to the nature of its operation as a pandemic vaccine plant.

**Main achievements**

- Founded Biosafety Committee and became its Chair.
- Designed and implemented e-databases for maintenance of audit findings (e-CAPA system) and chemical inventory.
- Transferred biosafety system parts to newly built Takeda facility in Hikari, Japan.
- Enhanced effectiveness and delivered validation of space decontamination system.

Nov 2007 - Dec 2007

**RESEARCH ASSISTANT**

**United Arab Emirates University, Al Ain, UAE** [MORE DETAILS](#)

- R&D activities within military toxicological project

Sept 2007 - Jan 2009

**STUDY PROGRAM MANAGER & CHANCELLOR DEPUTY FOR R&D / LECTOR**

**College of Applied Economic Studies, Czech Rep**

- Created and established new study programs focused on applied economics in environmental management (waste management, remediation etc.)
- Delivered R&D and foreign affairs concept of College.
- Led projects of significant impact on College and managed team as a Vice-Chancellor.
- Created effective teaching and coaching documents to assure high standard of education for students.

July 2005 -June 2007,

**SPECIALIST FOR LOGISTIC PROJECTS & ANALYSES**

**Dept. of Physical Logistics, Robert Bosch, Czech Rep** [MORE DETAILS](#)

- Analyzed processes in external warehouse to obtain a comprehensive baseline for subsequent optimization of packaging flow between Company and external warehouse.
- Developed optimization methods of logistics process to decrease financial losses and improve the evidence of Company's property.
- Mentored and coached external warehouse personnel on following of new procedures and using innovative tools for property evidence and incidence reporting.

**Main Achievements**

- Created transparent and easy to use system of returnable packaging receipt.
- Decreased of error rate and financial loss in circle of returnable packaging which led to savings in hundreds of thousands dollars.

Feb 2004 - July 2005,

**SPECIALIST FOR LOGISTIC PROJECTS & ANALYSES**

**Dept. of Logistics Projects, Robert Bosch, Czech Rep** [MORE DETAILS](#)

- Participated on project of upgrade of facility accounting, logistic and production (SAP R3) system.
- Supported data migration teams with preparation of documents and records.
- Restructured departmental Intranet websites.
- Cooperated on KANBAN implementation and production re-engineering, provided documents, data and records to project teams.

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**OTHER NOTABLE DETAILS**

- Managerial staff for Curriculum Studies Research Group [More Details](#)
- Management of the International Conference - [www.oedm-serm.org](http://www.oedm-serm.org)
- Significant publication activity in field [More Details](#)
- External University Lecturer – Chemical Safety, Industrial Disasters

**REFERENCES & CERTIFICATION AND PUBLICATIONS AVAILABLE UPON REQUEST**