Practical Mine Auxiliary Ventilation Workshop  
September 7-8, 2016

The purpose of this workshop is to provide mining operations with the basic tools for the day-to-day planning and effective operation of an underground mine auxiliary ventilation system. The target audience includes technologists, mine operators and engineers who are involved in the design, management and day-to-day operation of auxiliary mine ventilation systems. The presenter will be Dr. Euler De Souza, Associate Professor, the R. M. Buchan Department of Mining at Queen’s University in Kingston, Ontario, and President of AirFinders inc., a mine ventilation consulting company.

Location:
Day 1 - Lionel E. Lalonde Centre, 239 Montée Principale, Sudbury, Ontario P0M 1B0
Day 2 - NORCAT Underground Training Center (Fecunis Adit Mine), Strathcona Mine Rd, Onaping, Ontario P0M 2R0

Cost:
*Early Bird Special*: $800 + HST/participant until July 31, 2016. After July 31, 2016: $1,000 + HST/participant. Lunch and refreshments will be provided.

Registration:
Register through the Workplace Safety North (WSN) website or by phone.

Online registration:  [https://www.workplacesafetynorth.ca/events/event/practical-auxiliary-mine-ventilation-workshop-0](https://www.workplacesafetynorth.ca/events/event/practical-auxiliary-mine-ventilation-workshop-0)
Phone: Carol Lessard, WSN Prevention Services Assistant, 1 (705) 474-7233 x265

Cancellation Policy:
Registrants who provide written notice of cancellation at least one week prior to course start date will not be charged. Less than one week notice of cancellation or non-attendance will incur the full cost of registration. Participant substitutions may be made at any time prior to the start of the course.

WSN reserves the right to cancel or re-schedule a course. Registrants will be informed of any cancellations at least one week prior to the course start date. WSN's liability is limited to the registration fee.
Practical Auxiliary Mine Ventilation Workshop

Purpose
Auxiliary ventilation is required to dilute the fumes from blasting and diesel exhaust to a safe concentration required to maintain acceptable working conditions and to replace the oxygen used up by the workers and diesel equipment. It is also required control airborne dust and to control the temperature and humidity of the air in the working area. The purpose of the course is to provide mining operations with the basic tools for the day-to-day planning, design, installation, maintenance, and effective operation and monitoring of auxiliary mine ventilation systems.

Who Should Attend?
The target audience for this course includes mining engineers, technologists, mine operators and engineers who are involved in the design, management and day-to-day operation of auxiliary mine ventilation systems.

Program
This intensive workshop is designed to provide comprehensive training on auxiliary mine ventilation operation, planning and design as an integral part of day-to-day production. The first day is designed to familiarize the participant with standard techniques utilized in duct ventilation design and operation. Reference to case studies is made to demonstrate examples of good practice. At the end of day one a Manufacturer Information Session is organized to provide participants with an opportunity for networking and to be informed on the latest products from manufacturers and suppliers of auxiliary ventilation products. The second day is dedicated to field testing of a duct system installation in an operating mine, including visual inspection, airflow and pressure surveys and air quality checks. The collected information will be used to develop detailed evaluation of the performance of the auxiliary ventilation installation.

Participants are encouraged to bring along auxiliary ventilation technical material from their mining operation. This material is used in informal discussions that invariably turn out to be one of the most interesting aspects of the course. Participants are also encouraged to bring any specific problems to be solved during ventilation design sessions.

Topics
- Regulations relating to auxiliary ventilation
- Ventilation requirements in headings
- Auxiliary ventilation system sizing and design
- Fan and duct selection
- Auxiliary ventilation installation practices
- System maintenance, duct repair
- Ventilation checks and ventilation surveys

In Addition
- Manufacturer information session
Course Materials
A comprehensive 170-page Auxiliary Mine Ventilation Manual 5th Edition, initially published in 2010 and updated in 2014 by Workplace Safety North, will be the primary text used to transfer technical and practical knowledge. This manual will become an important source of information in the workplace.

Chapters include:
- Mine ventilation principles
- Methods of auxiliary ventilation
- Auxiliary ventilation fans
- Auxiliary fan location and operation
- Auxiliary ventilation ducts
- Devices for controlling airflow
- Air volume and fan requirements
- Practical design and operational requirements
- Auxiliary ventilation design
- Surveys for verification of system compliance
- Management and operation of auxiliary ventilation systems
- Ventilation plans and emergency preparedness
- Glossary
- Ontario regulations pertaining to mine ventilation
- Health & safety considerations
- Airflow fundamentals
- Fan characteristic curves
- Suggested auxiliary mine ventilation survey forms

Each participant will also receive a copy of an Auxiliary Ventilation Design Software developed for the mining industry to assist engineers and planners with the design of fan and duct systems.

Dr. Euler De Souza
Dr. Euler De Souza, a registered professional engineer in Ontario, is a mining engineer and technical advisor in mine ventilation and environment. He holds B.Sc., M.Sc. and Ph.D. degrees in Mining Engineering. De Souza is affiliated with the Robert M. Buchan Department of Mining, Queen’s University as an Associate Professor. De Souza is the president and CEO of AirFinders Inc., an engineering services company which provides mine ventilation solutions.

De Souza is a well-established and recognized advisor in the area of mine ventilation. He provides consulting services to mining companies throughout Canada and overseas. He has organized the North American /9th U.S. Mine Ventilation Symposium in 2002.

Some of his recent advisory work to mining companies includes: mine ventilation planning and design; shaft ventilation; design of ventilation raises; ventilation surveys; ventilation computer modeling; fan sizing and commissioning; and ventilation optimization. He regularly performs ventilation audits for a number of mines and has been active in providing industrial training at mine sites in mine ventilation.