



Program
Best Practices Training
“Arctic Black Carbon: Reduction of Black Carbon from Diesel Sources”
April 15-19, 2013

MONDAY, APRIL 15

- 08:45 – 09:00 Bus to MSTU from “Park Inn Polyarniye Zori”
- 09:00 – 09:30 Registration (MSTU, building “Б”, conference hall)
- 09:30 – 09:50 **Introduction** (15 min per presentation)
- Welcome from MSTU and introduction (Vladimir Malyshev, MSTU)
 - Black carbon initiative and overview of the project (Meredydd Evans, Battelle)
- 09:50 – 11:15 **Inventories in the world and in Russia** (20 min per presentation)
- Constructing of BC emission inventories (Tami Bond, University of Illinois)
 - Black Carbon National Monitoring Capacities in Russia (Alexander Nakhutin, IGCE)
 - Inventories in the U.S (Meredydd Evans, Battelle)

Discussion questions:

- What information and steps will be most helpful to Russia in developing a BC inventory in the future?
- How can we best provide the foundation for that in this project?
- What type of data from Russia will be most useful in improving international inventories?

11:15-11:45 Coffee break

- 11:45 – 13:00 **BC and Particulates Measurement** (20 min per presentation)
- BC measurement (Tami Bond, University of Illinois)
 - Emissions inventory of suspended particles in Moscow including black carbon (Olga Kislova, Mosecomonitoring)

Discussion questions:

- Role of measurement in assessing emissions?
- What are the major measurement challenges?

13:00 – 14:15 Working lunch (Tavern “Teruliai”, 16a, Lenina Prospect)

Discussion topic:

Diesel generators: scale of emissions and mitigation options

- 14:15-17:00 **Project Inventory Methodology** (20 min per presentation)
- Presentation on the proposed project methodology (Meredydd Evans, Battelle)

Discussion questions:

- How can we best align the methodology for extrapolation?
- How can we cross-check the fuel use (given existing fuel data)?
- Are there additional data on relevant emission factors in Russia?

TUESDAY, APRIL 16

08:45 – 09:00 Bus to MSTU from “Park Inn Polyarniye Zori”

09:00 – 10:00 **Overall discussion on methodology** (20 min per presentation)

- Rationale of Road Observation Sites and Parking Lots Choice (Evgeniy Gusev, MSTU)
- Research Methodology of Transport Flows and Parking Lots (Alexander Barinov, MSTU)

10:30 – 11:00 Coffee break

11:00 – 13:00 **Diesel generators in Murmansk Region** (20 min per presentation)

- Opportunities for Combinatory Use of Wind Power Generators and Modernized Diesel Generators in Remote Settlements of the Murmansk Region (Vladimir Malyshev, MSTU)

Discussion questions:

- What does the picture of diesel generators look like in Murmansk Region?
- How does it differ from the rest of Russia? What are possible data sources?
- What are the cost and opportunities to replace generators with cleaner alternatives?
- In implementing projects, how can we address the need for high quality fuel supply to remote areas?

13:00 – 14:15 Working lunch (at MSTU)

Discussion topic:

Feedback on surveys and integrating the data

15:00 – 17:30 **Site visit**

Severomorsk Transport Company (fleet, equipment, and statistical data)

WEDNESDAY, APRIL 17

Step by step implementation of methodology

08:45 – 09:00 Bus to MSTU from “Park Inn Polyarniye Zori”

09:00 – 10:30 **Site Visit**

Internal Combustion Engines Lab (Vladimir Malyshev, MSTU)

Discussion questions:

- How to do the thorough analysis of the collected data?
- What should be taken into account using the defined methods of data collection and analysis?
- What are other data needs and their sources?
- How to make the enterprises and other institutions data analysis more effective?

10:30 – 10:45 Coffee Break

11:00 – 12:30 **Site visit**

Commercial Port

12:30 – 14:00 Working lunch (restaurant “Spasatelnyy Krug”, 23, Portovy Passing)

Discussion question:

Fuel supply and use in Murmansk ports

14:15 – 16:00 **Survey Methods Discussion in Murmansk**

- On-road vehicles (MSTU)
- Video survey methodology (MSTU)
- GPS loggers (MSTU)
- Parking lot surveys (MSTU)
- Drivers questionnaires (MSTU)
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16:00 – 17:30 **Equipment Procurement Discussion**

- List of equipment to be purchased
- Possible subcontractors
- Data amount to be collected by MSTU project team

THURSDAY, April 18

09:30 – 11:30 **Surveys Methods Discussion in Murmansk Region**

- Off-road vehicles and mining equipment (MSTU)
- Locomotives (MSTU)
- Diesel generators (MSTU)

Discussion question:

Difficulties of video survey and parking lot surveys

Effectiveness of GPS loggers

How to successfully interact with drivers during questioning

11:30 – 13:00 **Site visit**

MSTU vehicle diagnostics center (equipment and technical inspection records)

13:00 – 14:15 Working lunch

Discussion topic:

Availability and use of inspection reports

15:00 – 17:00 **Site visit**

Demonstrational and Educational Energy Efficiency Centre (4, Papanina Str.)

FRIDAY, APRIL 19

09:30 – 12:00 **Consultations on project timeline**

- scope of work and methodology
- detailed schedule and deadlines of the project
- list of deliverables

12:00 – 13:00 Informal discussion on possible demonstration projects

13:00 – 14:00 Working lunch

14:00 – 17:00 Additional consultations

- data processing time schedule
- responsibilities distribution
- seminar feedback