

**BEAC WGE, Subgroup on Hot Spots Exclusion (SHE)  
Report on the Sector Practical Workshop  
“Preparing practitioners of Pulp and Paper Plants and other important stakeholders to BAT  
implementation via sector-related / industrial site-based workshops using experience of the Nordic  
countries in the field of BAT and technical innovations”  
in Syktyvkar (Supporting Activity (SA) No 2 a)**

under

**SA No2 “Preparing industry practitioners and other important stakeholders to BAT implementation  
via sector-related / industrial site-based workshops using experience of the Nordic countries in the  
field of BAT and technical innovations”**

**October 2019**

**Moscow – Syktyvkar**



## DISCLAIMER

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## Table of Contents

Aims.....	6
Place. Time. Experts. Participants .....	6
Topics. Training programme .....	9
Special consultations and discussions.....	12
Exit questionnaire .....	12
Publications .....	12
Outcomes .....	10
Lessons Learnt.....	12
Conclusion and recommendations.....	12
Acknowledgements.....	13
Attachment 2.....	19
Attachment 3.....	25



## Introduction

In 1994, the Barents Region Environment Action Programme was adopted by the Ministers of the Environment of the countries involved. In 2003, a report was released identifying 42 acute environmental problems in the Barents Region requiring urgent action (environmental Hot Spots of the Barents region).

In 2005, the Ministers of Environment of the four Barents countries – Finland, Norway, Russia and Sweden – defined the goal to start launching investment projects in all of the Barents environmental Hot Spots by 2013 with the aim of eliminating these Hot Spots. In 2010, a procedure for exclusion of the 42 environmental hot spots from the Barents environmental Hot Spot list was presented to the Ministers of Environment.

At the same time, since early 2000s, the concept of Best Available Techniques (BATs) has been studied, tested and gradually introduced in the Russian Federation. In 2014, the Federal Law of July 21, 2014 No 219-FZ amending the Federal Law No 7-FZ “On Environmental Protection” was passed. This new Law is often called “The BAT Law” of the Russian Federation since it introduced the concept of Best Available Techniques and Integrated Environmental Permits (IEPs). This opened opportunity for applying BAT principles for excluding installations from the List of Hot Spot based on the implementation of BATs and development of Environmental Performance Enhancement Programmes (EPEPs).

By the end of February 2019, the majority of subordinate acts has been passed, but the most important statutory document – the procedure of granting IEPs – has been issued in so called “preliminary” form. It does not reflect the national and international recommendations, results of open discussions, role games, etc. The reason for issuing is this “preliminary” form by the Government Decree of February 13, 2019 No 143 is that the fundamental alterations to the Federal Law No 7-FZ “On Environmental Protection” (addressing the IEP granting procedure) were not made before the end of 2018. Still, first “pilot” installations are running Environmental Impact Assessment Procedures and preparing for submitting Environmental Impact Assessment Reports and IEP applications (including EPEPs) to the federal Rosprirodnadzor for the State Environmental Expertise” (Quality Assessment/Review). First IEPs have to be granted in Russia in 2019, and to prepare applications for such permits the Barents region stakeholders need urgent support. So far, one Barents region installation (Haryaga Petroleum Exploration Site).

The Government Decree setting requirements to considering and approving EPEPs passed back in 2015 (Government Decree of September 21, 2015 No 999 “On the Interdepartmental Commission Considering Environmental Performance Enhancement Programmes”) was reviewed and amended to provide for the clear and participatory procedure harmonised with the BAT legislation (Government Decree of September 18, 2019 No 1028). Thus, there are all necessary conditions for the consideration and approval of EPEPs submitted by IPPC installations. Officially approved EPEPs can serve as criteria for the exclusion of IPPC installations (category I installations) from the list of “Hot Spots”. Along with other criteria (valid permits, trained staff, available information on key environmental aspects, etc.), EPEPs will form the necessary basis (information) for decision-makers.

Syktyvkar Sector Practical Workshop “Preparing practitioners of Pulp and Paper Plants and other important stakeholders to BAT implementation via sector-related / industrial site-based workshops using experience of the Nordic countries in the field of BAT and technical innovations” has become the first training event addressed first of all to Pulp and Paper industry practitioners operating “Hot Spot”



installations and focused on opportunities for using BAT-related instruments (EPEPs) for the exclusion procedure.

The workshop in Syktyvkar has been funded by the Barents Hot Spots Facility (BHSF) at NEFCO (the Nordic Environment Finance Corporation). NEFCO funded also the preceding six workshops as integral parts of Barents Supporting Activity SA 1 ("Preparing regional experts to apply the principles of BAT and the practical use of the Russian BREF documents for various branches").

**Report on the Sector Practical Workshop “Preparing practitioners of Pulp and Paper Plants and other important stakeholders to BAT implementation via sector-related / industrial site-based workshops using experience of the Nordic countries in the field of BAT and technical innovations” in Syktyvkar (Supporting Activity (SA) No 2 a)**

**Aims**

- 1) preparing Pulp and Paper industry practitioners to identify key issues to be solved while applying for Integrated Environmental Permits (required in accordance with to the Federal Law FZ-219, Russian BAT/IED legislation);
- 2) assessing key environmental performance parameters of Pulp and Paper pilot / partner Category I industries and helping industry practitioners to run gap analysis needed to draft Environmental Performance Enhancement Programmes (requirements to which are set by the Federal Law FZ-219 and by the Government Decree No 999);
- 3) forming a stronger link between BAT-based environmental regulation instruments and Barents Hot Spots exclusion procedure’s and opportunities.

It also aims to provide an insight in how the BAT-thinking can be used on the Barents Hot Spots in order to promote appropriate requirements and actions for the exclusion.

Training on-site is considered to be a very effective instrument for the involvement of industry practitioners into the work on the development of rationales (applications) for the Integrated Environmental Permits, draft Environmental Performance Enhancement Programmes including those addressing Hot Spot exclusion issues.

**Place. Time. Experts. Participants**

Syktyvkar 2a Workshop was conducted during the period of October 02-04, 2019 at the premises of Mondi Syktyvkar Pulp and Paper Plant and Syktyvkar Forestry Institute.

The workshop was held jointly by Russian and Nordic experts. The Federal State Autonomous Body Research Institute ‘Environmental Industrial Policy Centre’ (EIPC, Russian BAT Bureau) developed the training programme being supported by the representatives of SHE, the Swedish Environmental Protection Agency, Russian authorities (the Ministry of Natural Resources and Environment of the Russian Federation (Minprirody) and the Ministry of Industry and Trade of the Russian Federation (Minpromtorg) and the Environmental Auditing and Management Centre (the EIPC partner in the field of training).

Very important roles in organising Syktyvkar 2a Workshop were played by the Ministry for Natural Resources and Environmental Protection of the Republic of Komi as well as by the “Centre for Cleaner Production” and personally by Dr. Yan Tsygankov.

Still, all invitation, negotiation, explanation etc. activities were implemented by EIPC.

The following Nordic and Russian experts took part in the programme development and implementation of the workshop:

Nordic experts

- Richard Almgren, Green Business Company, director
- Mikael Lundholm, Froberg & Lundholm Advokatyr (Sweden), senior consultant



- Åke Mikaelsson, co-chair of Subgroup on Hot Spots Exclusion, Swedish Environmental Protection Agency
- Anders Tornngren, Swedish Environmental Protection Agency.

Kari Pirkanniemi (Environmental Counsellor, Regional Administration of Southern Finland) and Gunnar Haglund (Counsellor, Economic and Trade Department, Embassy of Sweden in Moscow) took parts in the workshop and contributed towards expert discussions.

#### Russian experts

- Tatiana Guseva, Deputy Director, EIPC; member of TC 113 on BAT
- Anatoly Kryazhev, Advis Plus consulting company, Pulp & Paper BAT expert
- Yury Lakhtikov, RAO Bumprom Association (Russian Pulp and Paper Manufacturers)
- Dmitry Ocheretenko, Chief environmental engineer Mondi Syktyvkar Pulp and Paper Plant
- Kirill Shchelchkov, Deputy Head of the Department for Standardization, Methodology and BAT Assessment, EIPC
- Maria Stepanova, auditor for energy management systems according to ISO 50001, Deputy Director for External Communications SRO 19 "Union "Energy efficiency", co-author of the Russian BREF on Energy Efficiency (ITS 48-2017)
- Irina Tikhonova, Associate Professor at the Department for Industrial Ecology, Dmitry Mendeleev University of Chemical Technology, Member of several technical Working Groups, experts of the Federal Project “Best Available Techniques”.

Victoria Venchikova, up to the end of August 2019 — the Deputy Director of the Department for Environmental Protection State Policy and Regulation, the Ministry of Natural Resources and Environmental Protection of the Russian Federation, prepared and recorded a special presentation which was shown to the participants and commented by Russian experts.

The Russian team of experts was formed by EIPC in accordance with the priorities of Syktyvkar 2a Workshop (set in the Terms of Reference) and reflecting interests of the Republic of Komi stakeholders as well as the special request of Mondi Syktyvkar (an introductory Energy Management training).

In September 2019, the Ministry for Natural Resources and Environmental Protection of the Republic of Komi helped to prepare a draft list of participants. EIPC invited representatives of the regional industries, environmental authorities, and higher school establishments to the workshop. EIPC prepared and disseminated all original invitation letters and identified additional participants from higher school establishments and consulting companies.

Maximum number of participants in the room amounted 46 people (please see Fig 1, 2 and the list of workshop trainers, trainees and guests in Attachment 1).

A special meeting of the BAT Working Group of the Russian Association of Pulp and Paper Producers (RAO “BUMPROM”) preceded SA 2a Sector Practical Workshop, and some representatives of the Working Group stayed for SA 2a workshop acting as trainers (Yuri Lakhtikov) and trainees.

During several sessions, workshop participants worked as a single group, but most of sessions were arranged as parallel events addressing specific training needs of (1) P&P technologists, environmental engineers and experts and (2) environmental authorities (of the federal and regional levels), consulting companies, university teachers, and MSc level students.

The initial idea to keep two separate sub-groups allowing them to come together while discussing BAT/IEP/EPE legislation, was put forward by the Nordic and Russian experts concerned about deep training of sector industry managers and engineers in the field of EPEP development and implementation.

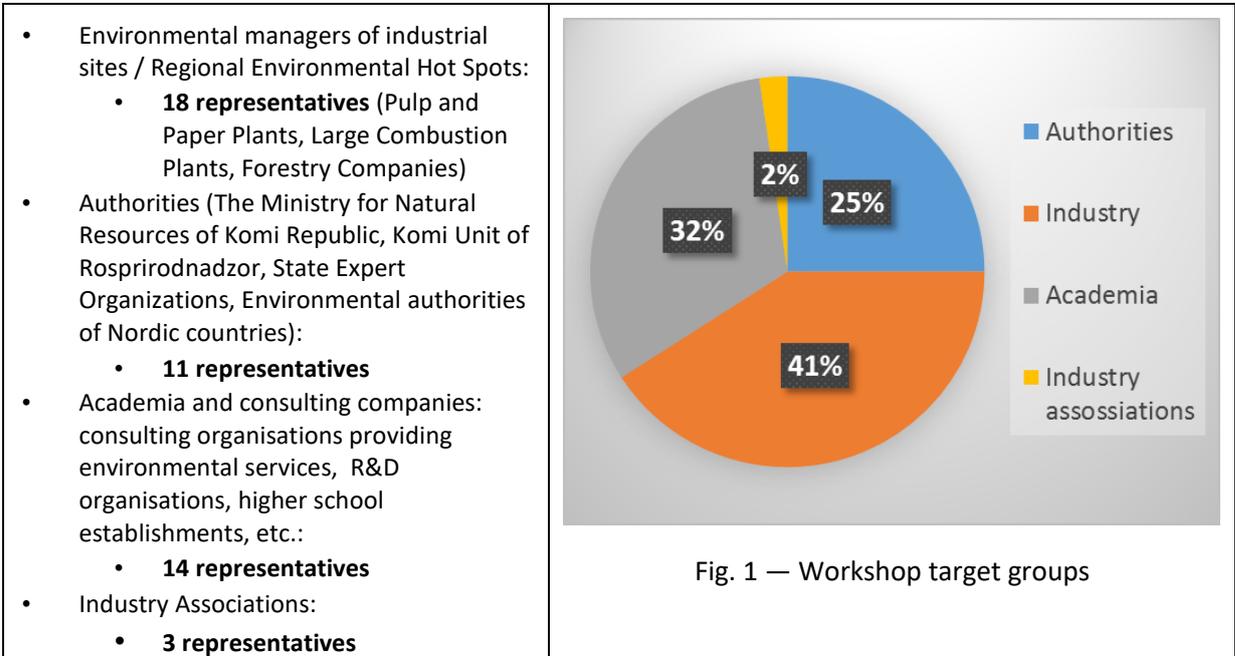


Fig 2 – Participants of Syktyvkar 2a Workshop

Specialists of the Komi regional unit of Rospirodnadzor and regional Category I installations (especially mining industries) participated actively in the workshop discussions, raised many serious

questions and discussed gaps in the RF environmental legislation, especially, in particular, acts setting requirements to IEP granting procedure and to calculating BAT-AELs.

### **Topics. Training programme**

Syktyvkar 2a Workshop training programme was tailored to meet requirements of P&P sector managers and engineers as well as other important stakeholders. It was built upon the results of SA 1b trainings and focused on EPEP issues, since Environmental Performance Enhancement Programmes can play the role of evidences of (1) environmental improvements (first of all – by “Hot Spot” Installations); and (2) BAT implementation.

Along with other criteria (staff trained, valid environmental permits held, information on key environmental aspects available (online reports, reviews, etc.) EPEPs can be considered for the exclusion of “Hot Spots. For P&P industries, specific criteria have to be based on Russian BAT requirements (for P&P — Minprirody Order of 27 August 2019 No 579.

Therefore topics of the SA No 2a covered the following events and themes (please see the training programme in Attachment 2):

- Mondi site visit, discussion of evidences of environmental improvements and BAT implementation
- Key information on BAT (Russian BREF/ITS 1-2015), Environmental Performance Enhancement Programmes (EPEPs) and Russian BAT/IED legislation (changes to the legislation are still expected)
- Presentation and discussion of Gap Analysis principles (focused on sector findings)
- BAT/BREF/EPEP connection to the Barents Environmental Hot Spots
- Information on the Federal Project (BAT Implementation) and opportunities for using EPEP assessment/approval instruments for the “Hot Spot” exclusion procedure
- Principles of Energy Management Systems and their links to Environmental Performance Enhancement and Greenhouse Gases (GHG) emissions reduction

Nordic experts participated actively in most discussions providing very valuable “reflections”, comments and explanations. Presentations were made by Anders Torngren and Richard Almgren.

The official opening of Syktyvkar 2a Workshop took place twice: at Mondi Syktyvkar and at the Forestry Institute. Åke Mikaelsson, co-chair of Subgroup on Hot Spots Exclusion, Swedish Environmental Protection Agency, welcomed participants and explained specific features of SA 2 workshops and the interrelatedness of SA 1 (general BAT/IED training), SA 2 (Sector-related training), SA 3 (study tours), and SA 4-5 (EPEP development and approval).

BAT/BREF/EPEP/IEP/FZ-7 presentations were prepared on the basis of EIPC/BAT Bureau materials considering alterations in the legislation, timing and composition of the group of participants.

Key workshop presentations consisted of two parts: one delivered by Russian experts and another one made by Nordic experts (tailored as either an additional presentation or a comment/reflection of the main material). This helped to explain many difficult points dealing with IEP granting procedures, establishment of BAT-AELs, compliance, reporting, inspections, etc. (Fig. 3-4).

The workshop was planned and conducted to meet training needs of both (1) environmental engineers and technologists and (2) representatives of environmental authorities, expert community, Academia and consulting companies. Parallel sessions appeared to be very useful for intensive discussions and

deep consideration of relevant materials. At the beginning of the workshop and during final discussions and SA 3 presentation, all attendees were gathered together.



Workshop opening (Åke Mikaelsson)

Energy Management training (Maria Stepanova)

Fig. 3 – Workshop scenes

All “Hot Spots” related presentations were prepared in accordance with SHE recommendations. Åke Mikaelsson described both the concept and the exclusion procedure and progress in detail.



Mondi On-Site Discussion

Wastewater Treatment Facilities

Fig. 4 – Mondi site visit scenes

On the request of the “Mondi” team, an extra topic was included to the workshop in Syktyvkar. A 4-hours introductory workshop on energy management was held.



An international discussion

EPEP presentation (Dmitry Ocheretenko)

Fig. 3 – Workshop scenes

The specifics of the installation (organisation) is as follows:

- “Mondi” has got a mature Environmental Management System
- Lots of measures are held at “Mondi” with both environmental and energy systems impact
- Not energy managers or power staff were present on the workshop, but specialists responsible for Environmental Performance.

Taking into account these features the workshop was presented in the mixed form of lectures, short interviews and practical tasks. Lectures contained basic concept of ISO 50001:2018 standard, including the context of the organisation, leadership and commitment, energy planning and further performance evaluation, as well as support, operation and improvement with an accent on items, specific for energy management as compared to ISO 14001 standard and specific of the new 2018 version.

Feedback got within short interviews and discussions allowed to tune the workshop themes and to deliver them in more targeted way to the audience demand. Finishing online poll showed the first estimations of the Mondi team of how the organization is ready to implement an Energy Management System (Fig. 5).

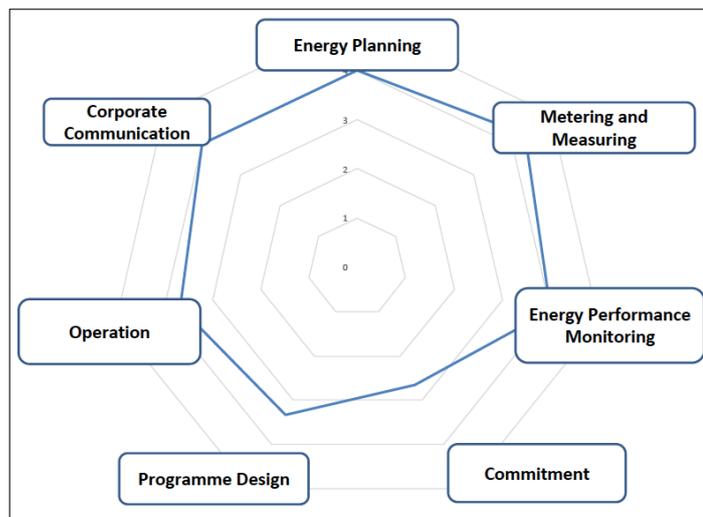


Fig. 5. “Mondi” preparedness to develop an Energy Management System

Workshop supporting materials (e-learning) including legislative acts, Russian BREFs and BAT-related standards related to Pulp and Paper and Municipal Wastewater Wastewater Treatment were placed online on [www.burondt.ru](http://www.burondt.ru) website.

### Special consultations and discussions

The following special consultations took place during the workshop:

- **EPEP-related Procedures:** Anatoly Kryazhev, Tatiana Guseva and Irina Tikhonova provided advice to Dmitry Ocheretenko (covering both EPEP preparation and its consideration by the Inter-Departmental Commission. It was agreed to begin describing Mondi Action Plan (retrospective EPEP) as soon as possible working together online and paying visits when necessary.
- **Collaboration with Nordic experts:** Åke Mikaelsson, Mikael Lundholm and Anders Torngren agreed that Nordic experts would take the responsibility for preparing the “rationale” for including Mondi into the list of “Hot Spots”, describing expectations of SHR group and the overall exclusion procedure. Russian experts will focus on technical aspects developing step by step the actual EPEP in accordance with the RF legislation.

### Exit questionnaire

Online final questionnaire was offered to the participants. They were asked to assess workshop events and materials using the scale from 1 (very poor) to 5 (excellent). By the end of the workshop, 17 questionnaires had been filled and returned to EIPC staff. Workshop participants assessed the workshop the following way:

- |  |      |
|--|------|
| – Timeliness of the workshop and information presented:              | 5.00 |
| – Coverage of BAT and environmental “Hot Spots” related information: | 4.94 |
| – Coverage of practical P&P related issues                           | 5.00 |
| – Coverage of the international experience:                          | 4.88 |
| – Quality of presentations and handouts:                             | 4.94 |
| – Usefulness for the future practical application:                   | 4.88 |

Many participants emphasised the high level of presentations made by all experts. In general, sector-related practical information and information on the Federal Project “BAT Implementation” (including pilot IEP granting procedure and EPEP assessment principles) appeared to be most useful.

### Publications

News on Syktyvkar 2a Workshop were posted by (please see Attachment 3):

- **Environmental Industrial Policy Centre:**  
<https://eipc.center/news/nailuchshie-dostupnye-texnologii-i-kompleksnyie-ekologicheskie-razresheniya-opyt-stran-severnoj-evropy-i-perspektivy-v-rossii/>
- **Ecoline:** <http://ecoline.ru/workshop-in-syktyvkar-2-4-10-2019/>
- **Russian BAT Bureau:** <http://burondt.ru/informacziya/novosti/nailuchshie-dostupnyie-texnologii-i-kompleksnyie-ekologicheskie-razresheniya-opyt-stran-severnoj-evropyi-i-perspektivy-v-rossii.html>



- **EnergoAtlas:** <http://www.energoatlas.ru/2019/10/05/nailuchshie-dostupnye-tehnologii-i-ehnergomenedzhment-v-prelomlenii-k-cellyulozno-bumazhnoj-otrasli/>

Information is also provided to PR-office of Mondi Syktyvkar Pulp and Paper Plant.

## Outcomes

Planned	Achieved
<p>Site visit paid and preliminary assessments (including BAT compliance / non-compliance evidences) have been made</p>	<p>BAT experts paid a site visit to Mondi Syktyvkar Wastewater Treatment Facility. BAT compliance issues were discussed and treated water quality parameters compared to BAT-AEL requirements.</p>
<p>Sector-related workshop conducted</p>	<p>Syktyvkar 2a workshop conducted in the period of October 02-04, 2019. Pre-workshop consultations were conducted on October 01, 2019.</p> <ul style="list-style-type: none"> <li>46 people participated in the workshop (including 18 environmental engineers and technologists of P&amp;P industries and 3 representatives of P&amp;P Association)</li> </ul>
<p>Hand-outs prepared and disseminated among the participants.</p>	<p>Hand-outs prepared and disseminated included Workshop supporting materials (e-learning), legislative acts, Russian BREFs and BAT-related standards were placed online on <a href="http://www.burondt.ru">www.burondt.ru</a> website.</p> <p><b>Link: <a href="https://mega.nz/#F!1AhmUIwL">https://mega.nz/#F!1AhmUIwL</a></b></p> <p><b>Password: !H7_hnTHGuGhFU8oGUDcl5w</b></p> <p>USBs were offered to all participants; additional copies were provided on request.</p>
<p>Participants fully understand key positions of BAT, BREFs, Environmental Performance Enhancement Programmes (EPEPs) and the Federal Laws FZ-219/FZ-7, Russian BAT/IED legislation (including changes made in 2018-2019).</p> <p>Participants understand principles of the comparative analysis of environmental performance data and applicable BAT-AELs (Technological Parameters) needed to draft rationales for EPEPs and IEP applications.</p>	<p>Trainees actively participated in the workshop and received the necessary information. BAT-related examples were provided for Pulp and Paper and Wastewater Treatment.</p> <p>Special attention was paid to EPEP development, assessment and approval requirements.</p> <p>Comparative analysis of technological parameters achieved by Mondi and sector-related BAT-AELs was made and results discussed.</p> <p>Gap analysis principles were presented, discussed in detail and recommended to be used by industry practitioners.</p>



Planned	Achieved
Participants understand Gap analysis principles (relevant to the Pulp and Paper sector).	Additional training on Energy Management Systems was provided to the representatives of P&P industries.
<p>Participants deeper understand how to use BAT/BREF/EPEP instruments for the exclusion of the List of Hot Spots.</p> <p>Capacity of the Russian BAT experts is improved (Pulp and Paper as well as general BAT/IEP/EPEP).</p>	<p>Environmental Performance Enhancement Programme principles, requirements and potential use for excluding industrial installations from the list of the Barents region Hot Spots were discussed both by industrialists and by the representatives of Rosprirodnadzor and The Ministry for Natural Resources and Environmental Protection of the Republic of Komi.</p> <p>Russian BAT experts participated in all discussions; “BUMPROM” Association and experts taking part in the project, agreed to nominate new candidates to the BAT Expert Society.</p>
Report on the discussions, conclusions and recommendations of the workshops, including lessons learnt for SHE about the value/use of the supporting activity as an instrument for enhancing “Hot Spot” exclusion, prepared.	The Report is prepared by EIPC and submitted to SHE and NEFCO.
<p>Rationale for SA 3, 4, and 5 strengthened.</p> <p>Particular recommendations are made for the finalisation of SA 3 programme.</p> <p>Mutual understanding is achieved with Mondi concerning preparation of EPEP and its submission to the Inter-Departmental Commission (for official approval).</p>	<p>SA 3 programme is presented to the potential participants of the study tour. So far, representatives of “BUMPROM” Association and Tissue Group (Paper Company) expressed their willingness to participate in SA 3.</p> <p>It is agreed that staff and experts of Mondi, Advis Plus Company and EIPC will work together to prepare a kind of a retrospective EPEP.</p> <p>The Rationale using EPEP as a criterion for Mondi exclusion will be prepared by Nordic experts.</p>
Rationale for SA 2, 3, 4, and 5 strengthened.	Details of the rationale for MWWT sector-related SA 2 and 3 discussed by Russian and Nordic experts.



<b>Planned</b>	<b>Achieved</b>
Relevant materials on Pulp and Paper sector workshop made available via the Barents co-operation web-pages with more targeted outreach.	EIPC is happy provide relevant materials for the further dissemination via the Barents co-operation web-pages. So far, all training materials are available via EIPC website.

## Lessons Learnt

- Due to rapid changes in BAT/IEP/EPE related legislation and practices, both newcomers and trainees who participated in 1b workshops, received new information and answers to questions raised earlier. Information and training materials attracted interest of all attendees, who requested additional information and methodological support.
- Analysis of achievements and difficulties of the first national pilots (15 installations preparing to obtain IEPs in 2019) attracted interest of all trainees, since this experience is unique and allows to understand which steps should be made to run Environmental Impact Assessment procedures for functioning industries and prepare applications for Integrated Environmental Permits.
- For the Barents region, Environmental Performance Enhancement Programmes open a unique opportunity to unbiasedly assess improvements achieved by “Hot Spot” industries and support them both in obtaining Integrated Environmental Permits and in the exclusion process. Lessons learnt by the first (pilot) installations preparing EPEPs and submitting them to the Inter-Departmental Commission need to be promoted and wider disseminated in Russia.
- Involvement of well-known and experienced Nordic and Russian experts and trainers allows widening the scope of training and discussions, adding “issues-upon-request” and identifying opportunities for SA 4, 5 and 6.
- In the Russian Federation, there need to build capacity of Rosprirodnadzor, other federal and regional authorities, as well as Category I installations in the field of Best Available Techniques, Integrated Environmental Permits and Environmental Performance Enhancement Programmes is now recognised by all key stakeholders. This is why materials prepared for Barents BAT-related activities, are used by specialists working in various Russian regions.

## Conclusion and recommendations

Syktyvkar 2a workshop trainees and trainers agreed that:

- Environmental Performance Enhancement Programmes can play the role of evidences of:
  - environmental improvements (first of all – by “Hot Spot” Installations);
  - BAT implementation.
- Along with other criteria, EPEPs can be considered for the exclusion of “Hot Spots”; these criteria include:
  - staff trained;
  - valid environmental permits held;
  - information on key environmental aspects is available (online reports, reviews, etc.).
- Specific criteria have to be based on Russian BAT requirements (for P&P — Minprirody Order of 27 August 2019 No 579).
- Mondi Syktyvkar Pulp and Paper Plant has been running environmental modernisation programmes since more than a decade. By 2019, Mondi has fully achieved BAT-AELs set both by the EU BAT Conclusions (Commission Implementing Decision of 26 September 2014 establishing the Best Available Techniques (BAT) Conclusions, under Directive 2010/75/EU of the European Parliament and of the Council, for the production of pulp, paper and board) and Russian BAT requirements (Minprirody Order of 27 August 2019 No 579).



- Mondi Syktyvkar Pulp and Paper Plant management is prepared to develop a retrospective Environmental Performance Enhancement Programme in accordance with the official requirements (Minprirody Order of 17 December 2018 No 666) with the support of Russian BAT experts and EIPC staff.
- Nordic experts are prepared a special chapter (rationale) to explain why a retrospective EPEP is prepared, submitted to the Inter-departmental Commission and which way the approved EPEP is intended to be used in the “Hot Spot” exclusion procedure.
- EPEP has to be submitted to SHE to be considered and commented. Mondi, BAT experts and EIPC staff are prepared to provide additional details and make necessary improvements.
- Barents region stakeholders (and first of all — the Ministry for Natural Resources and Environmental Protection and Komi Unit of Rosprirodnadzor) have to be informed on the progress of EPEP development and discussion. The Ministry has to make sure that the representative of the Republic of Komi participates in the analysis of EPEP and in online voting organised by the Inter-Departmental Commission (presumably in November-December 2019).

### **Acknowledgements**

The Environmental Industrial Policy Centre (Russian BAT Bureau) would like to express deep gratitude to the members of the Working Group on Environment and Subgroup on Hot Spots Exclusion, Nordic Environment Finance Corporation, Nordic experts, who contributed towards the workshop preparation and running. We are grateful to Dmitry Ocheretenko, Head of Environmental Protection of “Mondi” Syktyvkar Pulp and Paper Plant for his hospitality, professionalism and most active participation in SA 1 and 2. We would like to thank the Ministry for Natural Resources and Environment and the Ministry for Industry and Trade of the Russian Federation, Rosprirodnadzor and its Komi regional unit, the Ministry for Natural Resources and Environmental Protection of the Republic of Komi, management and members of “BUMPROM” Association, Russian experts, all regional partners and workshop attendees for their openness, great support, competent and resourceful advice and active participation in the event.



## Attachment 2

**SA No 2: 'Preparing industry practitioners and other important stakeholders to BAT implementation via sector-related / industrial site-based workshops using experience of the Nordic countries in the field of BAT and technical innovations'**

**SA No 2a: 'Preparing Pulp and Paper industry practitioners and other important stakeholders to BAT implementation via sector-related / industrial site-based workshops using experience of the Nordic countries in the field of BAT and technical innovations'**

### Place

Syktyvkar Forest Institute  
39 Lenin Str., Syktyvkar, Russia

### Time:

October, 2-4, 2019

### PROGRAMME

**Target Audience:** industry practitioners from Pulp and Paper companies (Category I and Hot Spot installations) located in the Barents region representatives of the environmental authorities (Rosprirodnadzor and regional ministries), Pulp and Paper experts

### Presenters:

- **Richard Almgren**, Green Business (Sweden), director;
- **Tatiana Guseva**, Deputy Director (Research), EIPC; member of TC 113 on BAT;
- **Anatoly Kryazhev**, Advis Plus consulting company, Pulp & Paper BAT expert;
- **Yury Lakhtikov**, RAO "BUMPROM" Association (Russian Pulp and Paper Manufacturers);



- **Mikael Lundholm**, Fröberg & Lundholm Advokatbyrå (Sweden), senior consultant;
- **Åke Mikaelsson**, Swedish Environmental Protection Agency;
- **Dmitry Ocheretenko**, Chief environmental engineer Mondi Syktyvkar;
- **Kirill Shchelchkov**, Deputy head of the Department for Standardization, Methodology and BAT Assessment, EIPC;
- **Maria Stepanova**, auditor for energy management systems according to ISO 50001, Deputy Director for External Communications SRO 19 «Union “Energy efficiency”», co-author of the ITS 48-2017 “Enhancing energy efficiency of economic and/or other activities”;
- **Irina Tikhonova**, Associate Professor at the Department for Industrial Ecology, Dmitry Mendeleev University of Chemical Technology of Russia;
- **Anders Torngren**, Swedish Environmental Protection Agency.

<b>Independent study (e-learning)</b>	<b>Training course participants representing Pulp and Paper companies have to prepare short analytical papers describing their plants (capacity, performance, challenges, BAT compliance, etc.)</b> It is supposed also that they study (if necessary) BAT-related normative, methodical and informational documents uploaded to BAT Bureau Portal: <ul style="list-style-type: none"><li>• Go to <a href="http://www.burondt.ru">www.burondt.ru</a> in Mozilla Firefox, Opera or Google Chrome</li><li>• Click ‘Личный кабинет’ on the main page</li><li>• Fill in the fields: Login: <b>training@eipc.center</b> Password: <b>uU8Vb6eVjn</b></li><li>• Find the tab ‘Документы Мероприятия. НДТ и КЭР’ and download all available documents</li></ul>
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**Intensive course of practical exercises and lectures**

**Day 1 (02.10.2019): all participants**

<b>Intensive course of practical exercises and lectures</b>				
<b>Day 1 (02.10.2019): all participants</b>				
9.00	<i>Transfer to Mondi Syktyvkar (meeting point: hotel Avalon, 133, Internatsionalnaya street, Syktyvkar)</i>			
9.30 – 12.30	Site visit On-site step by step explanation of: <ul style="list-style-type: none"> <li>– Mondi Syktyvkar reconstruction results</li> <li>– Technological processes</li> <li>– BAT compliance issues</li> <li>– Environmental self-monitoring practices</li> </ul>			Hosted by Dmitry Ocheretenko, Chief Environmental Officer of JSC “Mondi Syktyvkar”
13.00 – 13.45	<i>Transfer to Forestry Institute</i>			
13.00 – 13.45	<i>Lunch</i>			
13.45-14.15	Opening of the seminar (Syktyvkar Forest Institute)			Å. Mikaelsson
	<b>Practical exercises for Pulp &amp; Paper managers and engineers</b>		<b>Parallel session for environmental authorities (Rosprirodnadzor and regional ministries / departments)</b>	
14.45– 15.30	BAT requirements: Integrated Environmental Permits, Environmental Performance Enhancement Programmes	Yu. Lakhtikov T. Guseva	BAT / IED legislation: recent developments (as of august, 15, 2019)	V. Venchikova (video)
15.30 – 16.00	<i>Coffee break</i>			



16.00 – 17.30	<p>Pulp &amp; Paper industry: processes and equipment</p> <ul style="list-style-type: none"> <li>– Main technological processes</li> <li>– Energy generation</li> <li>– Energy efficiency</li> <li>– Wastewater treatment</li> <li>– Stack gases treatment</li> <li>– Waste management</li> </ul>	A. Kryazhev	<p>Federal Project “Environment”. Key aspects of the National Report (expectations)</p> <p>IEP granting procedure. Assessment / environmental expertise of IEP applications</p>	<p>T. Guseva I. Tikhonova K. Shchelchkov</p>
17.00 – 17.30	<i>Discussion</i>		<i>Discussion</i>	

**Day 2 (03.10.2019)**

<b>Practical exercises for Pulp &amp; Paper managers and engineers</b>	<b>Parallel session for environmental authorities (Rosprirodnadzor and regional ministries / departments)</b>
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9.00 – 10.00	<p>Russian BREF on Pulp &amp; Paper (ITS 1 – 2015)</p> <p>Consumption and emission levels BAT-AELs (Technological parameters)</p>	A. Kryazhev	Rosprirodnadzor Administrative Provisions for granting Integrated Environmental Permits to Category I Installations: Main Features	T. Guseva
10.00 – 11.00	<p>Environmental self-monitoring requirements</p> <p>Continuous self-monitoring</p>	I. Tikhonova	Pulp and Paper industries s as Category I Installations: BAT compliance issues	Yu. Lakhtikov
11.00 – 11.20	<i>Coffee break</i>			



11.20 – 12.30	Environmental Performance Enhancement Programmes Analysing Mondi Syktyvkar EPEP. Technical and economic aspects	D. Ocheretenko A. Kryazhev	Environmental Performance Enhancement Programmes for Category I installations: development and approval by the Inter-Departmental Commission	T. Guseva K. Shchelchkov
12.30 – 13.00	Key approaches to the development of IEP applications and /EPEPs Cases described by the trainees. GAP analysis	A. Kryazhev A. Torngren	Environmental self-monitoring requirements. Using continuous self-monitoring data for decision-making	I. Tikhonova
13.00 – 13.45	<i>Lunch</i>			
13.45 – 14.30	Key approaches to the development of IEP applications and /EPEPs Cases described by the trainees. GAP analysis (continuation)	A. Kryazhev A. Torngren	Environmental inspections: assessing and enforcing BAT compliance	T. Guseva
<b>All participants</b>				
14.30 – 15.40	Environmental performance of Pulp and Paper Installations in Nordic countries Introduction to the study tour programme			A. Torngren
15.40 – 16.00	<i>Coffee break</i>			
16.00 – 16.40	BAT/BREF/EPEP instruments for the exclusion of the List of Hot Spots			Å. Mikaelsson
17.00 – 17.30	Discussion			



**Requested Training (on-site, Mondi Syktyvkar, other companies can join)**

**Day 3 (04.10.2019): Energy Management Systems: a short course for Mondi Syktyvkar**

<p>9.00 – 16.00</p>	<p><b>Energy management System. Requirements</b> (based on ISO 50001:2018)</p> <ul style="list-style-type: none"> <li>– Context of the organisation. Pulp &amp; Paper sector.</li> <li>– Leadership. Policy</li> </ul> <p><b>Energy planning. Support. Documented information. Operation.</b></p> <p><b>Performance evaluation.</b></p> <ul style="list-style-type: none"> <li>– Monitoring, measurement, analysis and evaluation of energy performance and the EnMS</li> <li>– General.</li> <li>– Evaluation of compliance with legal requirements and other requirements</li> <li>– Internal energy audit</li> <li>– Management review</li> </ul> <p><b>Improvement</b></p> <ul style="list-style-type: none"> <li>– Nonconformity and corrective action</li> <li>– Continual improvement.</li> </ul> <p><b>EnMS outcomes</b></p> <ul style="list-style-type: none"> <li>– Improved energy efficiency</li> <li>– Reduced energy consumption</li> <li>– Reduced cost of energy</li> <li>– Improved reliability</li> <li>– Increased use of renewables</li> <li>– Contribution towards climate change goals</li> <li>– Achievement of sector-related energy efficiency goals</li> </ul>	<p>M. Stepanova A. Kryazhev T. Guseva R. Almgren</p>
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### Attachment 3

*News on the Sector Practical Workshop Programme (Syktyvkar 2a Workshop)*