

BEAC WGE, Subgroup on Hot Spots Exclusion (SHE)

Report on the Inter-related Supporting Activities

SA No 4a “Supporting Syktyvkar Pulp and Paper Mill in Preparing an Environmental Performance Enhancement Programme”

SA No 4b “Supporting Petrozavodsk Waste Water Treatment Plant in Preparing an Environmental Performance Enhancement Programme”

SA No 5: “Training in BAT-based Permit Granting Leading towards Agreed Criteria”

March 2020

Moscow – Syktyvkar – Petrozavodsk – Saint-Petersburg



DISCLAIMER

This Report has been prepared by the Federal State Autonomous Body ‘Research Institute “Environmental Industrial Policy Centre” (EIPC, Russian BAT Bureau). The views and opinions expressed in this paper are those of the authors alone. NEFCO does not take part in furnishing or distributing the information that follows, does not make any warranty or representation, either expressed or implied, with respect to the accuracy, completeness, or utility; nor does it assume any liability of any kind whatsoever resulting from the use or reliance upon any information, material, or procedure contained herein.



Table of Contents

Introduction	4
Objectives	6
Regional Hot Spot Exclusion Groups and BAT experts	7
The overall logic and deliverables of SA 4a, SA 4b and SA 5.....	8
Hot Spot Exclusion and Integrated Permit Granting Procedures: a Brief Comparative Analysis	17
Possible adjustments of the Full Track Exclusion Procedure	19
Seminar on the EPEP and the Russian Permit Granting System (SA No 5).....	20
Aims.....	20
Place. Time. Experts. Participants.....	20
Topics. Workshop programme.....	22
Side events, discussions and recommendations.....	23
Publications.....	24
Conclusion and recommendations	25
Acknowledgements.....	26
Attachment 2	27
Attachment 3	33



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 42 environmental Hot Spots from the Barents list was presented to the Ministers of Environment.

At the same time, since early 2000s, the concept of Best Available Techniques (BAT) 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 adopted by the Government. This new Law is often called “The RF BAT Law” since it introduced the BAT concept and Integrated Environmental Permits (IEPs). This opened opportunity to apply BAT principles for excluding installations from the Hot Spots List based on the BAT implementation and development of Environmental Performance Enhancement Programmes (EPEPs).

By the end of July 2019, the majority of subordinate acts has been passed, but the most important statutory document – the IEP granting procedure – was issued in so-called “preliminary” form. It did not reflect the national and international recommendations, results of open discussions, business games, etc. The reason for issuing 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 IEPs were granted in Russia in 2019, and the Barents region stakeholders needed urgent support in order to prepare applications for such permits (including EPEPs).

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”). The Decree was amended in 2019 (September 18, 2019, No 1208). The Inter-Departmental Commission began functioning in Autumn 2019.

The structure of Federal Service for Supervision of Natural Resource Usage (Rosprirodnadzor) (the agency under the Russian Ministry for Natural Resources and Environment) was optimised in 2019: 32 inter-regional units replaced 79 regional ones that functioned up to Autumn 2019. The new heads of these inter-regional units are responsible for granting IEPs to all Russian Category I installations.

According to the Federal Project “Best Available Techniques” (an integral part of the National Project “Ecology” (Environment)), there are 239 installations operating within the territory of the Barents Euro-Arctic region that have to obtain Integrated Environmental Permits in 2019-2024. These installations embrace Pulp & Pulp Plants (including former and current ‘hot spots’), Hydrocarbons Exploration Industries, Large Combustion Plants, Mining and Metallurgical Industries (among which there are also former and current ‘hot spots’), Municipal Wastewater Treatment Plants, etc.

In the revised Report of the Arctic Monitoring and Assessment Programme (AMAP) and Nordic Environmental Finance Corporation (NEFCO) on Barents Environmental Hot Spots from 2003, the Mondi Syktyvkar LPK (Mondi Syktyvkar Pulp & Paper Plant) was listed as hotspot Ko3 due to large emissions to the atmosphere, including specific toxic organoleptic contaminants of special concern, and polluted due to waste water discharge in the city. In follow of conscious and strategic efforts from



the Hot Spot owner in dialogue with the regional Hotspot Exclusion Group in Komi, the Hot Spot was thematically split into Ko3-1 Emissions to Air and into Ko3-2 Discharges to Water, whereof Ko3-1 was excluded by “Fast Track” (MiMxii in Sortavala on November 25, 2015) after having proved that the emissions to air no longer violated the current Russian regulations.

In the same Report, the Petrozavodsk Waste Water Treatment Plant was listed as Hot Spot K5 due to large discharges into Lake Onega.

Since ambitious reconstruction programmes of (1) Mondi Syktyvkar Pulp & Paper Plant and (2) Petrozavodsk Waste Water Treatment Plant were about to be completed in 2019, the Owners together with regional HEGs agreed to take the roles as “double pilots” for as well Full Track Exclusion as for the elaboration of an Environmental Performance Enhancement Programmes in accordance with the new BAT-based legislation on permit granting, FZ-7, serving in the Russian Federation since January 2019.

Thus, supporting Activities SA 4 and 4 aim at applying new Russian BAT-related legislation for running Full Track exclusion procedures for two pilot industries – Mondi Syktyvkar Pulp & Paper Plant and Petrozavodsk Municipal Wastewater Treatment Plant – and wider disseminating lessons learnt among the Barents region stakeholders.

Due to the strong links between SA 4a, SA 4b and SA 5 activities and deliverables, it was suggested preparing one report with clear descriptions of aims, objectives, deliverables, outcomes and lessons learnt.

Objectives

The overall objective of SA 4 and 5 is formulated as:

“Facilitate the exclusion of the Hot Spots Ko3-2 and K5 in a way that makes relevant show-cases (“pilots”) for as well the Steps 3-7 of the Barents Euro-Arctic Council (BEAC) Working Group on Environment (WGE), Hotspot Exclusion Procedure (“Full-Track Exclusion”) as for the permit granting legislation based on Best Available Techniques (BAT) under FZ-7 “On Environmental Protection” of 10.01.2002 (revised in 2019)”

In accordance with ToRs, SA 4 and 5 include:

- drafting Environmental Performance Enhancement Plans Mondi Syktyvkar Pulp & Paper Plant (SA 4a) and Petrozavodsk Municipal Wastewater Treatment Plant (SA 4b);
- training Barents region practitioners (industry managers) in drafting IEP applications and IEP granting as well as to create a better understanding of the new BAT based IEP system including the relationship between EPEPs and IEPs.

Hot Spot Exclusion Procedure (HSEP) includes the following steps:

1. Initiation of Exclusion
2. Screening and Analysis
3. Definition of Hot Spot issue and exclusion criteria
4. Drafting of Action Plan
5. Approval of Action Plan
6. Implementation of Action Plan
7. Application for Exclusion
8. Exclusion from the Barents Environmental Hot Spot List

In accordance with HSEP, the Sub-objectives of SA 4a, SA 5b and SA 5, on the way towards the overall objective are:

Sub-objective 1: For each pilot plant, specific Criteria, compliant to applicable BREFs and possible local requirements formulated to be agreed according to Step 3 of the HSEP

Sub-objective 2: For each pilot plant, EPEP preparation is methodologically supported (on the expert level); the document is refined to the stage to be signed and submitted to SHE according to Step 4 and Step 5 of the HSEP

Sub-objective 3: For each pilot plant, preparation of the Report on the Implementation of the Action Plan is supported on the expert level to enable the pilot plant to sign the Report and submit it to SHE (to be used as a basis for Application for Exclusion in accordance with Step 6 and Step 7 of the HSEP)

SUB-objective 4: Communication between the pilot plants, the regional HEGs and SHE is facilitated in accordance with the requirements of Steps 6-7 of HSEP

Sub-objective 5: The currently agreed HSEP and its operative sub-steps assessed vis-a-vi the permit granting procedure elaborated under FZ-7 and relevant adjustments suggested

Sub-objective 6: Dissemination of the practical experience from the EPEP elaboration and approval to branch related experts, authorities and enterprises.

Since both pilot plants in most or all aspects are already in compliance with the BAT requirements set in the Russian laws and standards, it was suggested, for experience feedback purposes, that Support Activities SA 4a and SA 4b are performed retrospectively from the points in time when the companies decided to make the necessary investments to upgrade the environmental performance of the installations.

For Mondi Syktyvkar Pulp & Paper Plant (SA 4a) and Petrozavodsk Municipal Wastewater Treatment Plant (SA 4b) the supporting activities helped to develop EPEPs for the sake of Hot Spot Exclusion procedure. The project helped to demonstrate this fact and to promote the leadership of the companies. The co-operation with and engagement from the companies therefore were vital for the supporting activities SA 4a and SA 4b.

Experience gained from the sector specific EPEP exercises (SA 4a and SA 4b) and sector seminars (under SA 2a and SA 2b) were used as a basis for the training and awareness raising workshop on EPEP development and implementation, Integrated Permit Granting, and Hot Spot exclusion procedure under SA No5.

Regional Hot Spot Exclusion Groups and BAT experts

Since SA 4a and SA 4b activities had to be implemented in the close collaboration with regional HEGs and BAT experts, initial consultations were conducted with the Republic of Komi and the Republic of Karelia stakeholders. It was suggested that representatives of SHE (Ruslan Butovsky, VNII ECOLOGIA) and Russian BAT Bureau (Tatiana Guseva, EIPC) had to participate in the discussions held at the regional level providing for the necessary advice on the specific feature of the (1) Full Track exclusion procedure, (2) requirements to EPEO preparation and specific features of EPEP approval procedure, and (3) peculiarities of Russian BAT-related legislation (please see Table 1)

Table 1

HEG members, regional officers supporting SA 4 and BAT experts

HEG members, regional officers supporting SA 4a and BAT experts, the Republic of Komi, Mondi Syktyvkar Pulp & Paper Plant	HEG regional officers supporting SA 4b and BAT experts, the Republic of Karelia, Petrozavodsk Municipal Wastewater Treatment Plant
Roman Polishvedkin, Minister for Natural Resources and Environmental Protection (MNREP)	Alexey Shchepin, Minister for Natural Resources and Environment (MNRE)
Eugene Potarov, Head of Division for Air Protection and Waste Management, MNREP	Lairisa Kolokol'nikova, Leading specialist of the Department for Environmental Protection and Waste Management, MNRE
Vladimir Druzhkov, Technical Director, Mondi Syktyvkar Pulp & Paper Plant (Mondi PPP)	Vitaly Ostapchuk, Technical Director, Petrozavodsk Municipal Wastewater Treatment Plant (Petrozavodsk MWWTP)
Dmitry Ocheretenko, Chief Environmental Officer, Mondi PPP	Iliya Chizhikov, Head of the Department for Environment and Licensing, Petrozavodsk MWWTP.
Ruslan Butovsky, SHE member, VNII ECOLOGIA	Ruslan Butovsky, SHE member, VNII ECOLOGIA
Tatiana Guseva, deputy Director of EIPC	Tatiana Guseva, deputy Director of EIPC

HEG members, regional officers supporting SA 4a and BAT experts, the Republic of Komi, Mondi Syktyvkar Pulp & Paper Plant	HEG regional officers supporting SA 4b and BAT experts, the Republic of Karelia, Petrozavodsk Municipal Wastewater Treatment Plant
Kirill Shchelchkov, EIPC co-ordinator	Kirill Shchelchkov, EIPC co-ordinator
Anatoly Kryazhev, P&P BAT expert	Andrey Epov, MWWT BAT expert
Dmitry Naliukhin, P&P BAT expert (wastewater treatment)	Dmitry Danilovich, MWWT BAT expert
Irina Tikhonova, self-monitoring and reporting expert (“horizontal” BAT expert)	Irina Tikhonova, self-monitoring and reporting expert (“horizontal” BAT expert)

The overall logic and deliverables of SA 4a, SA 4b and SA 5

Deliverables of SA 4 and 5 assignments were formulated to reflect both the Full Track exclusion procedure and requirements of the Russian IEP granting with regards to the development and approval of Environmental Performance Enhancement Programmes.

EPEPs have to be worked out by IPPC (Category I) installations that do not fully meet BAT requirements (applicable BAT-associated Emission Levels, BAT-AELs). EPEPs are:

- prepared by the owners of Category I installations (if needed – in the collaboration with experts and consulting companies);
- submitted to the Inter-Departmental Commission on the Assessment of Environmental Performance Enhancement Programmes;
- refined (amended) if the Commission recommends so;
- approved by the Commission (Fig. 1);
- included in the application for an Integrated Environmental Permit submitted to Rosprirodnadzor (or its regional/inter-regional unit, Fig. 2).

The overall IEP sets conditions for the gradual enhancement of the environmental performance (reduction of emissions). The implementation of the EPEP is monitored by the regional/inter-regional unit of Rosprirodnadzor (Fig. 1 and 2).

It is necessary to emphasise that the legislation allows to implement EPEPs for 7-year maximum. At the end of this period (which is also the duration of the IEP), the owner has to meet all BAT requirements and to apply for the permit renewal.

In the ideal situation, two procedures should be harmonised and real EPEPs should be prepared when there is a clear understanding, which performance parameters need to be improved and which solutions (measures) should be taken to achieve such improvements.

In case of Mondi Syktyvkar Pulp & Paper Plant and Petrozavodsk Municipal Wastewater Treatment Plant we faced a different situation: both installations had completed (or nearly completed) their Environmental Performance Enhancement Programmes and sought official approval of the improvements achieved. There were two ways to obtain such approvals:

- to develop EPEP in accordance with the requirements of the RF legislation and to ask the Inter-Departmental Commission to consider EPEPs retrospectively;
- to prepare IEP applications and to submit them directly to Rosprirodnadzor.

The first way was selected in order to:

- obtain expert views on the technological and technical solutions selected by the owners and on the reconstruction results;
- minimise risks associated with the fact that in Russia, the IEP granting procedure is not mature and in 2019, it was already clear that it would be altered in 2020-2021.

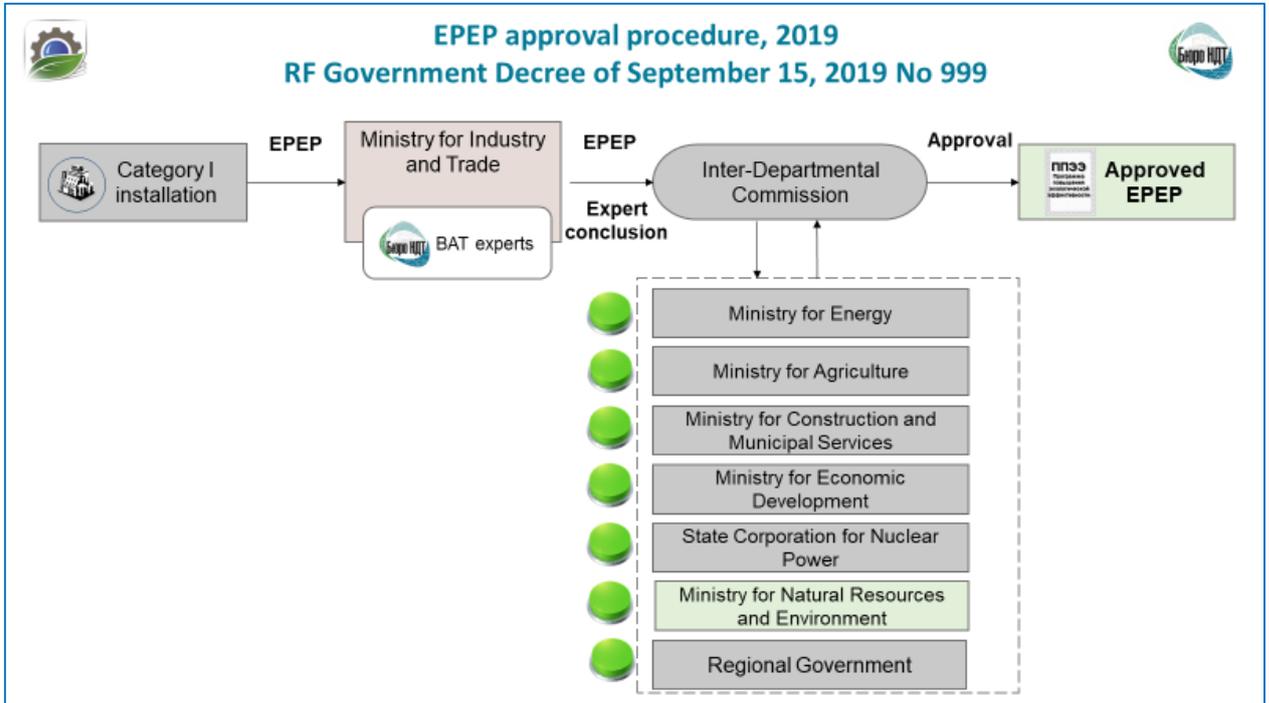


Fig 1. EPEP approval procedure in Russia, 2019

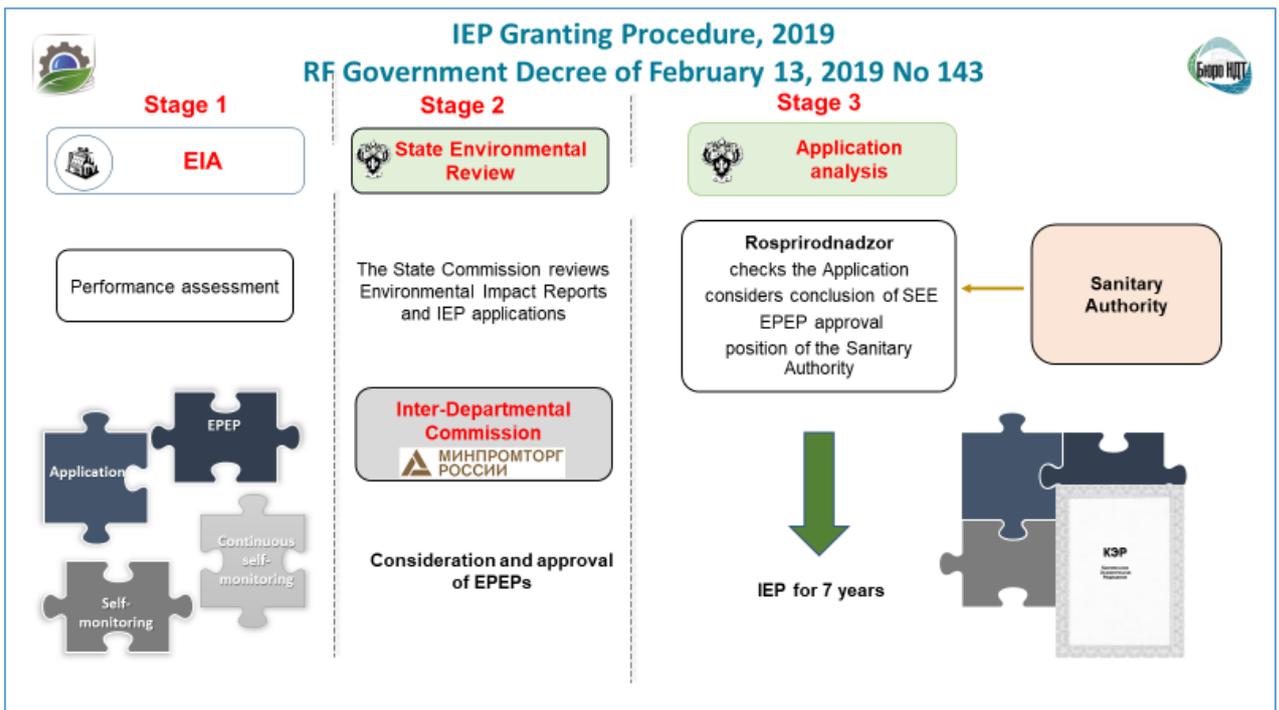


Fig. 2. IEP Granting Procedure in Russia, 2019

Though EPEP preparation, preliminary assessment and approval processes followed the same logic, SA 4 implementation in the Republic of Komi (SA 4a) and the Republic of Karelia (SA 4b) differed from each other (please see Table 2).

- **In the Republic of Komi:**

- Dmitry Ocheretenko, the Chief Environmental Officer of Mondi PPP, became the “engine” of the process, working hard and communicating actively with all stakeholders;
- Eugene Potarov, the Head of Division for Air Protection and Waste Management, MNREP, became the co-ordinator of all offline and online events conducted in accordance with the Full Track HSEP; it is likely that Eugene Potarov will continue co-ordinating Hot Spot exclusion related activities in the Republic of Komi;
- Roman Polshvedkin, the Minister for Natural Resources and Environmental Protection, had been very supportive and helped to communicate with the Inter-regional unit of Rosprirodnadzor;
- BAT-associated criteria were selected as a result of the regional discussions; the fact that sector-related BAT-AELs were approved by the order of the Federal Ministry for Natural Resources and Environment played a very important role and helped to achieve the necessary consensus;
- Difficulties faced at the stage of the voting were caused by the fact that in the Inter-Departmental Commission, the Republic of Komi was represented by the deputy Prime Minister, who did not find time to vote (express his support to EPEP drawn up by Mondi PPP). Still, voting results were positive, and Mondi PPP received the official approval document on 17.01.2020;
- Roman Polshvedkin took part in the workshop conducted in Saint-Petersburg on January 27-29, 2020, made a presentation and expressed his support to Mondi (Fig.3a); he was satisfied by HSEP and later on (in March) substituted the deputy-governor in the Inter-Departmental Commission (an important side result of the project);
- Dmitry Ocheretenko took part both in Saint-Petersburg (January 27-29, 2020) workshop and in the Ministerial meeting held in Lulea on February, 4-5, 2020, and made excellent presentations on the results of Mondi PPP reconstruction (Fig. 3b).



Fig. 3a. Roman Polshvedkin at Saint-Petersburg workshop



Fig. 3b. Dmitry Ocheretenko at Lulea Ministerial Meeting

- **In the Republic of Karelia:**

- Larisa Kolokolnikova, the Leading specialist of the Department for Environmental Protection and Waste Management, MNRE, became the co-ordinator of all offline and online events conducted in accordance with the Full Track HSEP;
- BAT-associated criteria were selected as a result of the regional discussions; the fact that sector-related BAT-AELs had not been approved by the Governmental Decree (for MWWTP the Decree has to be issued, but it is still being considered by Federal authorities) caused difficulties during the regional discussion. At the end, regional Rosprirodnadzor decided not to participate in the expert discussions, though its representatives participated in SA 5 (Saint-Petersburg workshop);
- Alexey Shchepin, the Minister for Natural Resources and Environment, had been very supportive, and helped to achieve the necessary consensus. Mr. Shchepin actively participated in HSEP-related events and attended the Ministerial meeting in Lulea on February, 4-5, 2020, and made a presentation on the results of Petrozavodsk reconstruction (Fig. 4b);
- Both Vitaly Ostapchuk, Technical Director, and Ilya Chizhikov, Head of the Department for Environment and Licensing, Petrozavodsk MWWTP, took part in expert discussions and HEG meetings. Mr Ostapchuk made a presentation on the reconstruction results
- at SA 5 workshop (held in Saint-Petersburg on January 27-29, 2020, Fig.4a);
- EPEP preparation was not easy and took longer than expected; Petrozavodsk MWWTP was supported both by sector and “horizontal” experts. The final document was uploaded to the inter-Departmental Commission on December, 30. 2019;
- There were no difficulties during the voting, and MNRE co-ordinated the process successfully; deputy Prime-Minister supported EPEP of Petrozavodsk MWWTP as soon as voting was opened;
- A valuable “side result” of the project is that Kondopoga Pulp & Paper Plant (representatives of which participated in SA 1b, 2a, 2b and 5) supported by BAT experts was granted the Integrated Environmental Permit and became one of 17 first Category I installations, which obtained IEPs in 2019.



Fig. 4a. Vitaly Ostapchuk at Saint-Petersburg workshop



Fig.4b. Alexey Shchepin at Lulea Ministerial Meeting



Table 2

Deliverable of SA 4a, SA 4b and SA 5 in the Republic of Komi and Republic of Karelia

Deliverables as Objectively Verifiable Indicators (OVI) related to respective HSEP Steps (3-7)	The Republic of Komi, Mondi Syktyvkar Pulp & Paper Plant	The Republic of Karelia, Petrozavodsk Municipal Wastewater Treatment Plant
<p>D3a: Invitation letters (with proposed BAT-based exclusion criteria attached) are prepared and submitted to the pilot plants, the regional environmental authorities and regional units Rosprirodnadzor.</p>	<p>Invitation letter was prepared by EIPC and sent to all addresses.</p> <p>Explanations were provided to the Ministry for Natural Resources and Environmental Protection of the Republic of Komi and to Rosprirodnadzor.</p>	<p>Invitation letter was prepared by EIPC and sent to all addresses. Explanations were provided to the Minister for Natural Resources and Environment and to Rosprirodnadzor.</p> <p>Karelian Rosprirodnadzor did not agree to participate in HSEP though later attended StPb workshop (SA 5) and provided very valuable comments on the Permit Granting procedure.</p>
<p>D3b: HEG's Protocol from Criteria Definition Meeting (with agreed BAT-based exclusion criteria attached) is prepared.</p>	<p>HEG members and BAT experts agreed on the specific criteria based on applicable BAT-AELs from the Russian BREF ITS 1-2015 (approved by Minprirody Order (BAT Conclusions) in 2019).</p> <p>EIPC organised online and offline meetings with sector BAT experts who suggested to cover both wastewater treatment and waste management issues while drawing up the EPEP.</p>	<p>HEG members and BAT experts agreed on the specific criteria based on applicable BAT-AELs from the Russian BREF ITS 10-2015. Up to now, sectoral BAT-AELs are not approved by the Governmental Decree.</p> <p>EIPC organised online and offline meetings with HEG Members. Special attention was paid to HELCOM requirements.</p>
<p>D3c: Written request from HEG to the pilot plants to submit Action Plans aiming at fulfilling the Specific Exclusion Criteria is drafted and negotiations facilitated.</p>	<p>Written request was prepared. Mondi PPP appeared to be well prepared to begin drafting the Action Plan in accordance with the requirements set by Minprirody Order 666 (17.12.2018). Expert support was provided to Mondi PPP. EPEP drafting process was organised as a collaborative work of Mondi and BAT experts.</p>	<p>Written request was prepared. Detailed explanations concerning the state of BAT-AELs for MWWTP were provided.</p> <p>Petrozavodsk MWWTP took somewhat 2 weeks to consider requirements; EPEP drafting (in accordance</p>



Deliverables as Objectively Verifiable Indicators (OVI) related to respective HSEP Steps (3-7)	The Republic of Komi, Mondi Syktyvkar Pulp & Paper Plant	The Republic of Karelia, Petrozavodsk Municipal Wastewater Treatment Plant
		with the requirements set by Minprirody Order 666 of 17.12.2018) began 10 days later than planned.
D4a: The Draft Action Plans / EPEPs are preliminarily assessed, recommendations on refining to the stage to be signed by the pilot plants are given	Draft EPEP was assessed chapter by chapter; recommendations on refining the draft were accepted by Mondi PPP; corrections were made and EPEP finalised in November 2019.	Drafting process was not easy; additional explanations, comments, etc. were provided both by sector experts and generalists. The drafting, correcting and finalising process was completed only in by the end of 2019.
D5a: HEG Protocols with Decisions on Approved Action Plans (in EPEP format) including technical description of actions, likely to solve addressed environmental problems according to the Specific Exclusion Criteria are drafted to be submitted to them pilot plans, environmental authorities and Rosprirodnadzor units.	HEG protocol was drafted, discussed with the Ministry for Natural Resources and Environmental Protection of the Republic of Komi and finalised in accordance with the recommendations of stakeholders. Finalised EPEP was submitted to the Inter-Departmental Commission on 11.11.2019, assessed by independent experts and finally approved by the Commission on 17.01.2020. EIPC provided additional explanations and comments to the Ministry for Industry and Trade (co-ordinating activities of the Commission).	HEG protocol was drafted, discussed with the Ministry for Natural Resources and Environment of the Republic of Karelia and finalised in accordance with the recommendations of stakeholders. Finalised EPEP was submitted to the Inter-Departmental Commission on 30.12.2019, assessed by independent experts and approved by the Commission on 27.01.2020. EIPC provided additional explanations and comments to the Ministry for Industry and Trade.
D5b: Publicly available press-releases, webpage materials, related articles addressing the Action Plan are collected and systematised to be submitted to HEG.	Publicly available materials were made available at such websites as: Lesprom.com, Bumprom.ru, Komiinform.ru, etc. Video on Mondi PPP reconstruction was disseminated via Facebook page of BAT Bureau.	Publicly available materials were made available at such sites as: Stolicaonegu.ru; Rk.Karelia.ru; Gov.Karelia.ru, etc. Video on Petrozavodsk MWWTP reconstruction was disseminated via Facebook page of BAT Bureau.



Deliverables as Objectively Verifiable Indicators (OVI) related to respective HSEP Steps (3-7)	The Republic of Komi, Mondi Syktyvkar Pulp & Paper Plant	The Republic of Karelia, Petrozavodsk Municipal Wastewater Treatment Plant
D6a. Evidences of physical installations and/or reconstructions in accordance with the Action Plan (visit + photos, certificates, etc.) are collected and systematised to be submitted to HEG.	All relevant certificates, permits, licences were attached both to the EPEP and to the final report on its implementation. Mondi PPP maintains an excellent register of all permits issued both by regional and federal authorities. The structure of this register can be used as an example for the future training and methodological support related activities.	All relevant certificates, permits, licences were attached both to the EPEP and to the final report on its implementation.
D6b. Press-releases, web-page materials, related articles addressing the implementation progress are collected and systematised to be submitted to HEG.	Publicly available materials were made available at such websites as Lesprom.com, Bumprom.ru, Komiinform.ru, etc. Video on the results of Mondi PPP reconstruction is available at: https://www.youtube.com/watch?v=iK9Xe1r3Rdw	Publicly available materials were made available at such sites as: Stolicaonegu.ru; Rk.Karelia.ru, Gov.Karelia.ru, etc. Video on the results of Petrozavodsk MWWTP reconstruction is available at: https://www.youtube.com/watch?v=jDCOUHNkpG0&feature=emb_share&fbclid=IwAR3hDI1NT_ihKcrgUSqQCrXfRJVZVwqLh8RhoW_GFSZGkNmTr_8m1u8Q-B0
D6c. Preparation of the Final Report on Completed Implementation, incl. possible deviation and assessment of achieved results in comparison with Specific Exclusion Criteria, is supported on the expert level.	The Final Report was prepared by Mondi PPP in close collaboration with BAT experts. The initial structure suggested by SHE was further developed to reflect specific feature of the activities implemented and results achieved. BAT experts emphasise the outstanding professionalism of Dmitry Ocheretenko, Chief Environmental Officer.	The Final report was prepared by Petrozavodsk MWWTP with the support of both sector and “horizontal” (environmental self-monitoring and reporting) BAT experts. Experts provided additional information, explanations and were involved in correcting and finalising the Report.



Deliverables as Objectively Verifiable Indicators (OVI) related to respective HSEP Steps (3-7)	The Republic of Komi, Mondi Syktyvkar Pulp & Paper Plant	The Republic of Karelia, Petrozavodsk Municipal Wastewater Treatment Plant
D7a. Draft Protocol assessing and stating to what extent HEG regards the implementation complete and the environmental performance in compliance with the Specific Exclusion Criteria is prepared and submitted to HEG; negotiations are facilitated.	The protocol was drafted by EIPC and submitted to HEG. BAT experts provided oral comments on the inter-relatedness of the “traditional” and BAT-related requirements to wastewater treatment. It was emphasised that Mondi PPP meets both older (based on Maximum Allowable Concentrations) and newer (BAT-associated) requirements.	The protocol was drafted by EIPC and submitted to HEG. It was agreed to approve the Report on EPEP implementation as demonstrating compliance with specific criteria (based on BAT-AELs set in Russian BREF ITS 10-2015) and HELCOM requirements.
D7b. HEG is assisted to prepare a Protocol with Communication Decision on the Achieved Compliance with Specific Exclusion Criteria to be submitted to SHE	EIPC drafted the Protocol and participated in the discussions. The final document was submitted to SHE on January 13, 2020.	EIPC drafted the Protocol and participated in the discussions. The final document was submitted to SHE on January 22, 2020.
Dx. Complete and well-documented implementation of the HSEP with all sub-steps from D3a to D7b implemented	All steps were made; documents prepared and submitted to SHE in accordance with the HSEP requirements and conditions of the assignment covering SA 4a and 5.	All steps were made; documents prepared and submitted to SHE in accordance with the HSEP requirements and conditions of the assignment covering SA 4b and 5.
Dy. Effective and relevant communication on D5b, D6c, D7b has taken place	The communication schedule was pretty hectic, but thanks to the regional support, all necessary online and offline meetings were conducted, protocols prepared, assessments made, expert support rendered, and materials listed in D5b, D6c, D7b submitted to SHE.	All necessary online and offline meetings were conducted, protocols prepared, assessments made, expert support rendered, and materials listed in D5b, D6c, D7b submitted to SHE.



Deliverables as Objectively Verifiable Indicators (OVI) related to respective HSEP Steps (3-7)	The Republic of Komi, Mondi Syktyvkar Pulp & Paper Plant	The Republic of Karelia, Petrozavodsk Municipal Wastewater Treatment Plant
Dz. Brief Assessment Report on the HSEP with Alignment Suggestion vis-a-vis FZ-7	Please see chapter "Hot Spot Exclusion and Integrated Permits Granting Procedures".	Please see chapter "Hot Spot Exclusion and Integrated Permits Granting Procedures".
Då. Seminar on the EPEP and the Russian permit granting system focused on achievements of the pilot plants, conducted with a broader branch related audience	Please see chapter "Saint-Petersburg workshop".	Please see chapter "Saint-Petersburg workshop".

Therefore, Deliverables D3a-Dx resulted in achieving sub-objectives 1-4:

Sub-objective 1: For each pilot plant, specific Criteria, compliant to applicable BREFs were agreed. In case of Mondi PPP, sector BAT-AELs set in ITS 1-2015 in 2015, were approved by Minprirody Order in 2019. In case of Petrozavodsk PPP, HELCOM recommendations were considered while selecting specific exclusion criteria along with sector BAT-AELs.

Sub-objective 2: For each pilot plant, EPEP preparation was methodologically supported by BAT experts. EPEPs were drafted, commented, discussed, refined and finalised. Sector nd “horizontal” BAT experts took part at each step of this work.

Sub-objective 3: For each pilot plant, preparation of the Report on the Implementation of EPEP was supported by BAT experts. Since EPEPs were prepared retrospectively and most information had been collected and systematised while preparing EPEPs, Report drafting seemed to be easier than EPEP drafting.

SUB-objective 4: Communication between the pilot plants, the regional HEGs and SHE is facilitated in accordance with the requirements of Steps 6-7 of HSEP. There were no communication constrains, and in both Republics, levels of support were very high.

Hot Spot Exclusion and Integrated Permit Granting Procedures: a Brief Comparative Analysis

Sub-objective 5: The currently agreed HSEP and its operative sub-steps assessed vis-a-vi the permit granting procedure elaborated under FZ-7 and relevant adjustments suggested.

Hot Spot Exclusion and Integrated Environmental Permit Granting procedures have quite much in common because both of them are based on BAT principles and aim at better environmental performance of industrial installations.

Fig. 5 shows key steps of these procedures (going from the bottom to the top).

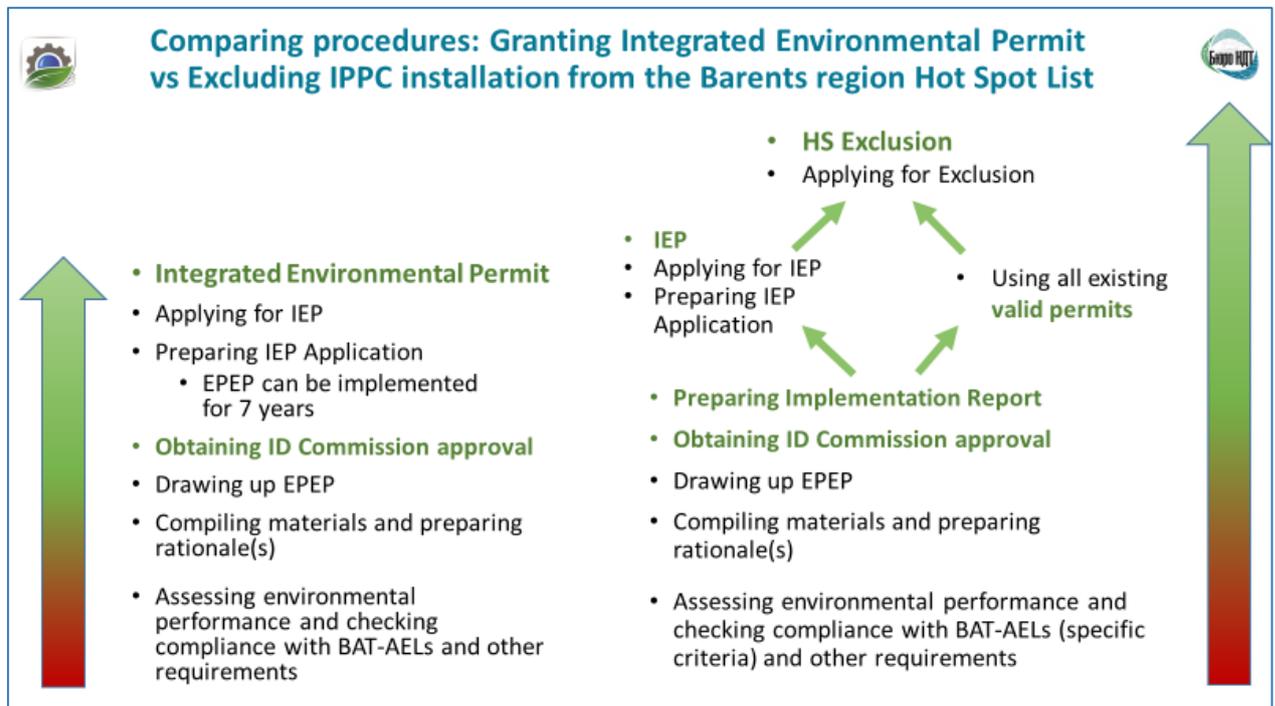


Fig. 5. Comparison of (left) Integrated Environmental Permit Granting Procedure and (right) Environmental Hot Spot Exclusion Procedure

As it can be seen, the initial steps correspond with each other and have to be made for both purposes:

- Environmental performance assessment using applicable BAT-based criteria. In both cases additional criteria (such as compliance with “immission” standards (Maximum Allowable Concentrations) of highly toxic substances in ambient air and/or receiving waterbodies.
- Development of comprehensive rationales explaining (1) IEP conditions for which an installation applies for (BAT-AELs and other emission allowances) or (2) environmental performance (BAT-AELs and other parameters) that need(ed) to be improved to be excluded from the Hot Spot List.

Though EPEP development and approval steps look identical, they differ because:

- For IEP purposes, Environmental Performance Enhancement Programmes are prepared to be implemented during several years (up to 7). The Inter-Departmental Commission assesses each draft EPEP to make sure that measures (activities) planned will result in the necessary environmental improvements. IEP is granted on the basis of the approved EPEP; its implementation is closely monitored by Rospirodnadzor. This means that Category I installations listed as Hot Spots can obtain IEPs without fully implemented EPEPs.
- For HSEP purposes, Environmental Performance Enhancement Programmes are prepared retrospectively to make sure that achievements reported by the installations allow them to comply with applicable BAT requirements. The Inter-Departmental Commission checks that specific criteria selected by HEGs are correct and assesses results achieved by the installations. In such cases, to obtain IEPs, installations do not need to include EPEP approval documents (and EPEPs themselves) to the applications.

In 2019, IEP granting procedure was introduced in the Russian Federation. In 2019-2024, Category I installations are obliged to demonstrate their compliance with applicable BATs and to obtain Integrated Environmental Permits. Thus, to be excluded from the Hot Spot List, each Category I installation can consider two options:

- Preparing all the necessary documentation and applying for IEP; obtaining the IEP and applying for the exclusion.
 - It is important, that in 2019, the IEP granting procedure functioned in the “preliminary” mode; in 2020, legislative requirements are being altered, and it is expected that the new procedure will be functioning in August-September 2020. The majority of Category I installations (especially those bearing valid single media permits) prefer lingering and learning lessons learnt by few pilots (17 installations in 2019).
- Applying for the exclusion with the approved EPEP, Implementation Report and all valid single-medium permits.
 - This option was selected for excluding Mondi PPP and Petrozavodsk MWWTP from the Barents region Hot Spot List in 2019-2020.

To further develop Full Track HSEP, SHE has to decide, which option is preferable (more reliable), but it is necessary to point out that (1) IEP does not guarantee that the installation in question complies with all applicable BAT requirements because IEP can be granted with the condition to implement an EPEP and include therefore “temporary” emission limit values.



Possible adjustments of the Full Track Exclusion Procedure

The Full Track HSE procedure was implemented for the first time in 2019. “Double pilots” drew up EPEPs, received approvals from the Inter-Departmental Commission, prepared Implementation Reports and applied for the exclusion.

Difficulties faced by the pilot plants, HEGs and BAT experts, were caused mostly by the hectic timetable and the necessity to involve new stakeholders into the new procedures. The following recommendations reflect both positions of pilot plants and views of EIPC and BAT experts.

To adjust (simplify) the Full Track Exclusion Procedure it is suggested:

- To make an official decision on the co-existence of two Hot Spot Exclusion roots (up to 2024):
 - IEP to HSE without the requirement to immediately demonstrate compliance with applicable BAT-AELs.
 - EPEP/Implementation Report to HSE with the requirement (a) to demonstrate compliance with applicable BAT-AELs and (b) to bear all valid single-medium permits.
- To prepare a clear description of HSEP (in Russian) emphasising BAT-related and other requirements and responsibilities of regional stakeholders.
- To run regional (inter-regional) information (awareness raising) events explaining roles and responsibilities of HEG members, communication requirements, and inter-relatedness of HSEP and IEP granting procedure.
- To inform (potential) participants of the next exclusion procedures about existing requirements and to prepare a “waiting list”. To check if any specific criteria other than BAT-AELs need to be developed (such as Best Environmental Practices for polluted sites management).
- To strengthen involvement of regional HEGs (possibly – to document lists of HEG members) at all stages of HSEP.
- To consider opportunities for approving exclusion decisions before the end of 2022 (for example, in 2021) to motivate Category I installations and owners of other Hot Spots to demonstrate their achievements and implementation of Best Available Techniques or Best Environmental Practices.
- To review the list of documents and to exclude excessive documentation (there are too many letters and protocols, which is especially unpleasant when such documents have to be prepared, translated, submitted and answered during a very short period of time).
 - Letters and protocols prepared for 2019 pilot plants can be used as examples to be studied.

In 2020, Kovdor mining Site owners began showing their interest to Hot Spot Exclusion Procedure. Formally, the site is one of Category I installations and at the same time – a Hot Spot. It could become the next pilot installation for which specific exclusion criteria need to be selected using both internationally approved approaches to mining sites management and applicable Russian BATs and BAT-AELs.



Seminar on the EPEP and the Russian Permit Granting System (SA No 5)

Sub-objective 6: Dissemination of the practical experience from the EPEP elaboration and approval to branch related experts, authorities and enterprises.

Aims

- to present the results of retrospective analysis of key environmental issues for Syktyvkar Mondi PPM and Petrozavodsk Vodokanal;
- to discuss Specific Exclusion Criteria for Ko3-2 and K5 established by respective HEGs and decide on their viability;
- to form a stronger link between BAT-based environmental regulation instruments and Barents Hot Spots exclusion procedure's and opportunities;
- to recommend Komi and Karelia Hot Spots for exclusion at Lulea Ministerial meeting;
- to prepare practitioners of Municipal Wastewater Treatment Plants and P&P Mills to identify key issues to be solved while applying for Integrated Environmental Permits (required in accordance with the Federal Law FZ-219, Russian BAT/IED legislation);
- 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.

Place. Time. Experts. Participants

Saint Petersburg SA No 5 workshop was conducted during the period of January 27-29, 2020 at the premises of Saint-Petersburg Waste Water Treatment Plant: South-West Waste Water Treatment Facility (YuZOS) and Information and Education Centre.

The event has been held jointly by Russian and Nordic experts. Environmental Industrial Policy Centre developed the programme being supported by the representatives of SHE, the Swedish Environmental Protection Agency, Finnish Environment Institute (SYKE), Russian authorities (the Ministry of Natural Resources and Environment of the Russian Federation (Minprirody), the Federal Supervisory Natural Resources Management Service (Rosprirodnadzor) and the Ministry of Industry and Trade of the Russian Federation (Minpromtorg).

Very important roles in organising Saint-Petersburg SA 5 workshop were played by Saint-Petersburg Waste Water Treatment Plant (and personally by Olga Rublevskaya and Irina Alexeeva) and by Russian Cleaner Production and Sustainable Development Centre (and personally by 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

- Ulf Bjallas, Fröberg & Lundholm Advokatbyrå
- Henrik Forsstrom, NEFCO
- Jyrki Laitinen, Finnish Environment Institute (SYKE), SHE Group Expert (Waste Water)
- Mikael Lundholm, Fröberg & Lundholm Advokatbyrå
- Rickard Natjehall, Swedish Environmental Protection Agency
- Kristina Svinhufvud, Swedish SHE Task Force Expert (Waste Water), Swedish Environmental Protection Agency
- Anders Torngren, P&P Expert, Swedish Environmental Protection Agency

Russian experts

- Tatiana Guseva, Deputy Director, EIPC; member of TC 113 on BAT
- Andrey Epov, Chief technical specialist, TWW Treatment Water, member of the Technical Group 10 (leading development of Russian MWWT BREF)
- Anatoly Kryazhev, Chief Technical Expert, 'Advis Plus' LLC, P&P Expert
- Kirill Shchelchkov, Deputy Head of the Department for Standardization, Methodology and BAT Assessment, EIPC
- 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".

Stanislav Banzin, Head of Environmental Division of Kondopoga Pulp and Paper Plant (Karelia), took part in the workshop and contributed towards expert discussions sharing his experience on permit application and granting.

The leading technologists of Saint-Petersburg Vodocanal contributed towards on-site training and presentation of best available techniques applied at YuZOS Facility.

The Russian team of experts was formed by EIPC in accordance with the priorities of Saint Petersburg Workshop and reflecting interests not only Barents region but rather whole North West of the Russian Federation.

In December 2019 – January 2020, the EIPC had prepared the draft list of participants and invited representatives of the K5 and Ko 3-2 Hotspots, 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 amounted more than 100 people (please see Fig 6, 7 and the list of workshop trainers, trainees and guests in Attachment 1).

- Environmental managers of industrial sites / Regional Environmental Hot Spots:
 - **39 representatives** (Wastewater Treatment (Vodocanals) and Pulp and Paper Plants)
- Authorities (Regional Ministries for Natural Rospirodnadzor, State Expert Organisations, Municipal Authorities, Environmental authorities of Nordic countries):
 - **23 representatives**
- Academia: R&D organisations, higher school establishments, etc.:
 - **15 representatives**
- Consulting Companies and Associations:
 - **26 representatives**

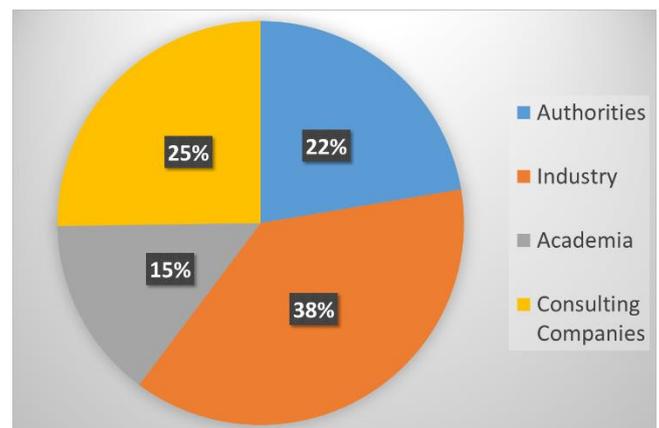


Fig. 6. Saint Petersburg workshop target groups



Fig 7. Participants of Saint Petersburg No 5 Workshop

Rospirodnadzor representatives, as well as employees of Regional Environmental Ministries (especially Roman Polshvedkin and Larisa Kolokol'nikova) participated actively in the workshop discussions, raised many serious questions and discussed gaps in the RF environmental legislation, in particular, in acts setting requirements to IEP granting procedure. It was pointed out that the fact that Government decrees establishing BAT-AELs for MWWTP still have not been passed and this fact prevents Vodokanals from finalising IEP applications.

Topics. Workshop programme

Saint Petersburg No 5 Workshop was built upon the results of SA 1-2 trainings and SA 4 findings 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 Ko3-2 and K5, specific Exclusion Criteria have been established by HEGs as a result of retrospective assessment.

Therefore, topics of the SA No 5 covered the following events and themes (please see the training programme in Attachment 2):

- On-site training at YuZOS Facility with special attention paid to common challenges for permit applicant and high priority tasks;
- Environmental Performance Enhancement Programme (EPEP) and its Role in Barents Hot Spot Exclusion Procedure for Category I Facilities. Discussion;
- EPEP Implementation Results at Communal Waste Water Treatment Plant: AO ‘PKS-Vodocanal’
- EPEP Implementation Results at Pulp and Paper Mill: AO ‘Mondi Syktyvkar LPK’;

- Expert opinion on EPEP implementation: Russian and Nordic experts;
- SHE Collaboration with Interested Parties. Decision of Interdepartmental Commission on EPEPs prepared by AO “Mondi Syktyvkar PPP” and AO “PKS-Vodocanal”
- Consultations for Nordic experts and Russian practitioners regarding Russian BAT-related legislation.

Nordic experts participated actively in most discussions providing very valuable “reflections”, comments and explanations. Presentations were made by Rickard Natjehall, Anders Torngren Jyrki Laitinen, Kristina Svinhufvud and Mikael Lundholm.

The official opening of Saint Petersburg No 5 Workshop took place at YuZOS.

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 participants’ groups.

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.

All Hot Spots related presentations were prepared in accordance with SHE recommendations. Rickard Natjehall described both the concept and the exclusion procedure and progress in detail (see Fig. 8).



Fig. 8a. StPt WWTP performance assessment (Olga Roblevskaya)



Fig. 8b. Report on Similarities of EPEP / Hot Spot Exclusion Procedures (Rickard Natjehall)

Side events, discussions and recommendations

- **IEP-related Procedures and IEP Inspections:** Irina Tikhonova and Tatiana Guseva discussed the outcomes of 2019 IEP granting procedure both with Category I industries and Nordic experts
- **Future steps of MWWTP preparing for IEP:** Irina Tikhonova provided advice to specialists of Saint-Petersburg Vodocanal in terms of the preparations to IEP granting under the conditions of the expected Government Decree setting requirements to MWWTPs.
- **Certificates of Professional Development:** Trainees emphasised that they need to receive certificates confirming their participation in advanced BAT-related professional training. They are prepared to study additional materials online.
- **SA 3:** Jyrki Laitinen and Kristina Svinhufvud presented a programme for study visit to Finnish Industrial and Municipal Waste Water Treatment Facilities. Over 25 people registered for the Study Tour.



Publications

News about workshops were posted by (see Attachment 3 for some examples)

- Environmental Industrial Policy Centre
 - on website: <https://eipc.center/news/ispolzovanie-principov-ndt-dlya-vypolneniya-mezhdunarodnyx-obyazatelstv-rossijskoj-federacii-teoriya-i-praktika/>
- Russian BAT Bureau
 - on website: <http://burondt.ru/informacziya/novosti/vyipolnenie-mezhdunarodnyix-ekologicheskix-obyazatelstv-rossii-ndt-kak-instrument-mezhregionalnogo-sotrudnichestva.html>
 - in social media – Vkontakte: https://vk.com/burondt?w=wall-104558471_654%2Fall and Facebook: https://www.facebook.com/pg/burondt/posts/?ref=page_internal
- Energia Vita Expert Society
 - on website: <https://energiavita.ru/2020/02/03/ndt-pomogayut-umenshit-kolichestvo-ehkologicheskix-goryachih-toчек/>
- VNIIEcologia
 - on website: <http://www.vniiecology.ru/index.php/8-news/839-v-sankt-peterburge-obsudili-problemy-goryachikh-toчек-barentsova-regiona>
- Sectoral web journals
 - on website: <https://gofromagazine.com/-mondi-slpk-isklyuchen-iz-spiska-ekologicheskix-goryachix-toчек-barenczev-evroarkticheskogo-regiona.html>
 - on website: <http://rosinvest.com/novosti/1405084>
- Regional News Agencies:
 - on website: <https://www.bnkomi.ru/data/news/106868/>
 - on website: <https://komiinform.ru/news/192821>

Reports on results achieved by Ko3-2 and K5 were included into SHE Hot Spots Fact Sheet 2020: <https://www.barentsinfo.fi/beac/docs/SHEHotSpotsFactSheet2017-2020En.pdf> and published in corporate news letter (See Attachment 3)

Conclusion and recommendations

Supporting activities 4 and 5 opened a new page in BAT-related studies, assessments, training events and provided an opportunity to exclude two installations – Mondy Syktyvkar Pulp and Paper Plant (Ko 3-2) and Petrozavodsk Municipal Wastewater Treatment Plant (K 5) from the List of Environmental Hot Spots of the Barents region.

Industry managers and engineers, employees of environmental authorities, BAT experts and trainees agree that:

- In Russia, there procedure of granting Integrated Environmental permits is still being altered, and it is likely that many installations will prefer waiting for more clarity and for the mature procedure to appear (in 2021). In addition, Rosprirodnadzor has underwent a significant restructuring, and new officers are responsible for IEP granting started working in October-November 2019.
- The Inter-Departmental Commission on the Assessment of Environmental Performance Enhancement Programmes (integral parts of IEP applications for the installations not fully compliant with BAT requirements) started working in September 2019 and continues its activities in 2020. Representatives of Federation Subjects included in the all Barents region take part in the activities of this Commission.
- The need to build capacity of Category I (IPPC/IED) installations as well as Rosprirodnadzor and other federal and regional authorities in the field of Best Available Techniques and Integrated Environmental Permits is growing, too. It is suggested considering opportunities for running both SA 2 (sector-related) and “1b like” (more general).
- SA 3 Training Tour programme is of interest both for MWWT and P&P practitioners. In addition, BAT experts need to be involved to contribute towards building capacity of Russian Society of BAT experts (involved in the assessment of EPEPs and IEP applications).
- To activate BAT-based Hot Spot Exclusion Procedure, it would be logical to agree on the co-existence of two possible roots (up to 2024):
 - IEP to HSE without the requirement to immediately demonstrate compliance with applicable BAT-AELs;
 - EPEP/Implementation Report to HSE with the requirement (a) to demonstrate compliance with applicable BAT-AELs and (b) to bear all valid single-medium permits.
- Hot Spots being inspired by lessons learnt by Mondi PPP and Petrozavodsk MWWT need more information on the Full Track exclusion procedure. It is preparing a kind of an “interest/waiting list” and to check if any specific criteria other than BAT-AELs need to be developed (such as Best Environmental Practices for polluted sites management).
- Many improvements have been achieved by Hot Spots since 2003-2005, and therefore it is logical to consider opportunities for approving exclusion decisions before the end of 2022 (for example, in 2021). Such a decision would help to motivate Category I installations and owners of Hot Spots to demonstrate their achievements and implementation of Best Available Techniques or Best Environmental Practices.
- Considering that in several cases HSEP will be run “retrospectively” (EPEPs were drawn up 5-10 years ago) it is suggested to review the list of documents and to exclude excessive documentation.



Participants of SA 4 and 5 activities emphasise that:

- Results of the implementation of the Full Track Exclusion Procedure should be publicised, described in well-written (and possibly – simplified) form and explained to the Barents region stakeholders.
- The fact that one of the first IEPs granted in 2019 was obtained by the active participant (and trainee) of SA 1 and 2 can also be used both for motivating Category I installations and for training industry managers.
- It would be logical to continue using industrial sites of Petrozavodsk and Saint-Petersburg MWWTPs and Mondi PPP for training purposes looking also for other opportunities.

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 Environment Finance Corporation, Nordic experts and staff of the Swedish Environmental Protection Agency, Norwegian Environmental Agency, and Finnish Environment Institute SYKE. We are grateful to the Ministry for Natural Resources and the Ministry for Industry and Trade of the Russian Federation, regional environmental ministries and departments, Rosprirodnadzor and its regional units, Saint-Petersburg Vodocanal (Wastewater Treatment Company) HEG members, Russian experts, all participants of working meetings, discussion and Saint-Petersburg workshop for their openness, great support, and competent and resourceful advice. We would like to thank all regional partners who provided the necessary logistic arrangements, helped to prepare and publish articles and news, who became generous hosts to all experts, trainees and guests of the events conducted during the implementation of SA 4a, SA 4b and SA 5.



Attachment 2

SA No 5: “Training in BAT-based Permit Granting Leading towards Agreed Criteria”

Environmental Performance Enhancement Programmes for BAT compliance as instruments for exclusion of Category I enterprises from Barents Euro-Arctic Region Hot Spot list

Approval of BAT-based Specific Exclusion Criteria

Communal Waste Water Treatment and Pulp and Paper Manufacturing

Dates: January 27-29, 2020

Place:

January 27, 2020 – Saint Petersburg, Volkhonskoe shosse, 123 (South-West Waste Water Treatment Facility (YuZOS))
January 28-29 2020 - Saint Petersburg, Shpalernaya str, 56 (Information and Education Centre of State Unitary Enterprise ‘Saint Petersburg Waste Water Treatment Plant’ (SUE ‘Saint Petersburg WWTP’))

PROGRAMME

Target Audience: Barents region WWT and Pulp&Paper industry practitioners (predominately Category I Installations and Hot Spot facilities), representatives of Russian governmental stakeholders (both federal and regional level), experts, specialists for project and design, consultant, research and educational organisations.

Trainers, speakers, moderators:

- **Stanislav Banzin**, Head of Environmental Division, AO ‘Kondopoga Pulp and Paper Mill’;



- **Ruslan Butovsky**, Head of Scientific-Methodological Centre ‘Technology’, Federal State Budgetary Enterprise ‘Russian Research Institute for Environmental Protection’ (VNII Ecologia);
- **Ulf Bjallas**, Fröberg & Lundholm Advokatbyrå (Sweden), Senior Consultant;
- **Tatiana Guseva**, Deputy Director of FSUE “Research Institute “Environmental Industrial Policy Centre” (EIPC), member of TC 113 “Best Available Techniques”;
- **Helena Dahlbo**, Waste Treatment Expert, Leading Researcher at Finnish Environment Institute (SYKE);
- **Anatoly Kryazhev**, Chief Technical Expert, ‘Advis Plus’ LLC, P&P expert;
- **Yurki Laitinen**, SHE Group WWT Expert, SYKE;
- **Matti Iikkanen**, Nordic Environment Finance Corporation (NEFCO), SHE Group Expert;
- **Yury Lakhtikov**, Chairman of RAO 'Bumprom' Management Board;
- **Mikael Lundholm**, Fröberg & Lundholm Advokatbyrå, Environmental Lawyer
- **Rickard Natjehall**, Policy Officer, Swedish EPA;
- **Vitaly Ostapchuk**, Technical Director, AO ‘PKS-Vodocanal’ (Petrozavodsk WWTP);
- **Dmitry Ocheretenko**, Chief Environmental Officer, AO ‘Mondi Syktyvkar LPK’ (Pulp and Paper Mill);
- **Kari Pirkanniemi**, Senior Advisor in Environmental Affairs, Environmental Permits, Regional State Administrative Agency for Southern Finland
- **Roman Polishvedkin**, Minister for Natural Resources and Environmental Protection, Komi Republic;
- **Olga Rublevskaya**, Director of Department for Analysis and Technical Development of Supply and Waste Water Systems, SUE ‘Saint Petersburg WWTP’;
- **Kristina Svinhufvud**, WWT expert, Swedish EPA;
- **Irina Tikhonova**, Senior Lecturer in Industrial Ecology, Dmitry Mendeleev University of Chemical Technology, writer for sectoral and horizontal Russian BREFs;
- **Anders Torngren**, P&P expert, Swedish EPA;
- **Henrik G. Forsstrom**, Senior Consultant, NEFCO;
- **Kirill Shchelchkov**, Deputy Head of Scientific Advisory Department, EIPC;



- **Andrey Epov**, Chief Technical Expert, TWW Treatment Water, Leading writer for Russian BREFs on Communal Waste Water Treatment (ITS 10-2015 and ITS 10-2019);
- **Mikhail Yulkin**, Director, Centre for Environmental Investments;
- **Timo Yuttijarvi**, WWT Expert, SYKE.

Visit to YuZOS, SUE 'Saint Petersburg WWTP'		
January 27, 2020: Russian and Nordic Participants (prior registration is required)		
11.00-16.00		
11.00	Transfer to YuZOS WWT Facility (from 'Prospekt Veteranov' Metro Station, see the picture below)	
12.00 – 12.40	YuZOS WWT Facility: Transfer to Technological Regulation – High Priority Tasks	O. Rublevskaya / I. Alexeeva
12.40 – 13.00	Discussion	
13.00 – 13.30	Coffee Break	
13.30 – 15.45	Visit to YuZOS WWT Facility	Organizer: SUE 'Saint Petersburg WWTP'
16.00 – 16.45	Transfer to 'Prospekt Veteranov' Metro Station	



Concluding Seminar		
January 28, 2020: all participants		
9.30 - 18.00		
9.30 – 9.40	Seminar Opening	A. Mikaelsson
9.40 – 10.00	Opening Address	R. Polshvedkin
10.00 – 11.00	Integrated Environmental Permits and Environmental Performance Enhancement Programmes. Requirements and outcomes by the end of 2019. Discussion.	I. Tikhonova / T. Guseva
11.00 – 11.20	Coffee Break	
11.20 – 11.50	Hot Spot 'Full Track' Exclusion Procedure for Barents Euro-Arctic Region. Discussion	A. Mikaelsson / R. Butovsky
11.50 – 12.50	Environmental Performance Enhancement Programme (EPEP) and its Role in Barents Hot Spot Exclusion Procedure for Category I Facilities. Discussion	T. Guseva / I. Tikhonova
12.50 – 13.15	BAT transfer for P&P Mills: Road to Technological Regulation	Yu. Lakhtikov / S. Banzin



13.15 – 14.00	Lunch	
14.00 – 14.30	EPEP Implementation Results at Pulp and Paper Mill: AO 'Mondi Syktyvkar LPK'	D. Ocheretenko
14.30 – 15.30	P&P BATs: Expert Opinion	A. Kryazhev A. Torngren
15.30 – 15.45	Coffee Break	
15.45 – 16.15	EPEP Implementation Results at Communal Waste Water Treatment Plant: AO 'PKS-Vodocanal'	V. Ostapchuk
16.15 – 17.15	WWT BATs: Expert Opinion	A. Epov K. Svinhufvud
17.15 – 17.45	SHE Collaboration with Interested Parties. Decision of Interdepartmental Commission on EPEPs prepared by AO 'Mondi Syktyvkar LPK' and AO 'PKS-Vodocanal'	T. Guseva
17.45 – 18.00	<i>Discussion. Seminar close-out</i>	
January 29, 2020 (on request)		
Additional Consultations for Nordic experts and Russian practitioners (on request)		



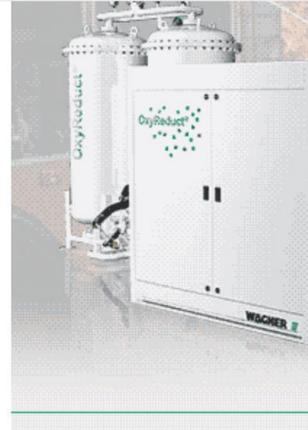
<p>9-30 – 13.00</p>	<p>Consultations will be provided on individual requests submitted to organizers before 17 Jan. 2020</p>	<p>T. Guseva I. Tikhonova K. Shchelchkov</p>
---------------------	--	--

Attachment 3



«Монди СЛПК» исключен из списка экологических горячих точек Баренцев/Евроарктического региона

По итогам встречи министров окружающей среды стран Баренцев/Евроарктического региона (БЕАР) «Монди Сыктывкарский ЛПК» исключен из числа экологических горячих точек (горячая точка Ко3-2 – «Сокращение сброса сточных вод»). Это решение принято в связи с успешной реализацией компанией Mondi стратегического проекта по модернизации очистных сооружений предприятия, в результате чего выросла эффективность работы очистных сооружений и значительно улучшены качественные показатели сточных вод. Официальное мероприятие, в котором приняли участие министры окружающей среды Норвегии, Швеции, Финляндии и



ПОДПИШИТЕСЬ НА

Ваше имя _____

Ваш e-mail _____

https://energiavita.ru/2020/02/03/ndt-pomogayut-umenshit-kolichestvo-ehkologicheskix-goryachih-tochek/

ЭКСПЕРТ-БЮРО | УСЛУГИ | КОНТАКТЫ

Energia Vita

энергетика • экология • цифра

ЭНЕРГЕТИКА | ЯПРОФИ | ПРОМЫШЛЕННОСТЬ | ГОРОД И ДОМ | ЭКОЛОГИЯ | ЦИФРОВЫЕ ТЕХНОЛОГИИ | ENERGYNET | КОЛУМНИСТЫ | РЕГИОНАМ

НОВОСТИ

Опубликованы проекты стандартов в области умных городов

Подготовка спикера: универсальная структура речи

В Москве пройдет конференция по транспортной электроэнергетике городских агломераций

Способы снижения энергопотребления системами ОВК? 10 марта в Москве

Продвижение бизнеса в сообществах и пабликах в соцсетях

RAWIFORUM 2020: у России есть технические возможности, чтобы сделать углеродно-нейтральную экономику

RENWEX 2020 вырастет минимум на треть

Технологические компании с решениями для энергоэффективности — обор на ита.lu/category/digital/ инансирование!

НДТ помогают уменьшить количество экологических «горячих точек»

03.02.2020 | LEAVE A COMMENT

Центр экологической промышленной политики и Бюро НДТ провели в Санкт-Петербурге 27-29 января 2020 года научно-практический семинар по наилучшим доступным технологиям и программам экологической эффективности в рамках проекта по экологическим «горячим точкам» Баренцева региона. По его итогам два объекта были исключены из списка горячих точек на основании соблюдения требований НДТ в период 2018-2020 гг.

В Республиках Карелия и Коми, Архангельской и Мурманской областях, а также в Ненецком автономном округе к экологическим «горячим точкам» отнесен целый ряд объектов, многие из которых являются также объектами I категории негативного воздействия на окружающую среду. Эксперты работают совместно с представителями предприятий и органов власти с тем, чтобы повысить информированность и наладить работу по подготовке программ повышения экологической эффективности, разработке заявок на комплексные экологические разрешения, а в результате уменьшить количество экологических «горячих точек» в регионе.

Российские эксперты инициировали международные консультации с участием коллег из стран Северной Европы по признанию требований НДТ (как нарративных, так и

Включить подписку

НАВИГАЦИЯ

ENERGYNET | ВИЗ | ГЧП | ЖХХ | МИСТЕР X | НДТ | НТИ | ТК0 | УК | БЮДЖЕТНАЯ СФЕРА | ВОДОСНАБЖЕНИЕ | ДЕТАМ | ДОКУМЕНТЫ | КАПРЕМОНТ | КВАЛИФИКАЦИИ | КЛИМАТ | ОПЫТ РЕГИОНОВ | РЕПОРТАЖ | СВЕТОДИОДЫ | СТАРТАП | СТРОИТЕЛЬСТВО | ТЕПЛОСНАБЖЕНИЕ | УМНЫЙ ГОРОД | УЧЕТ | ФОРУМЫ | ЦИФРОВИЗАЦИЯ | ЭЛЕКТРОМОБИЛИ | ЭЛЕКТРОЭНЕРГЕТИКА | ЭНЕРГЕТИЧЕСКИЕ ОБСЛЕДОВАНИЯ | ЭНЕРГОМЕНЕДЖМЕНТ | ЭНЕРГОСЕРВИС | ЭНЕРГОЭФФЕКТИВНОСТЬ ЗДАНИЙ

АВТОРСКИЕ КОЛОНКИ



www.vniiecolgy.ru/index.php/8-news/839-v-sankt-peterburge-obsudili-problemy-goryachikh-tochek-barentsova-regiona

МИНИСТЕРСТВО ПРИРОДНЫХ РЕСУРСОВ И ЭКОЛОГИИ РОССИЙСКОЙ ФЕДЕРАЦИИ
 ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ БЮДЖЕТНОЕ УЧРЕЖДЕНИЕ
 ВСЕРОССИЙСКИЙ НАУЧНО-ИССЛЕДОВАТЕЛЬСКИЙ ИНСТИТУТ ОХРАНЫ ОКРУЖАЮЩЕЙ СРЕДЫ

ВНИИ ЭКОЛОГИЯ

Президент РФ
 Правительство РФ
 МИНПРИРОДЫ РОССИИ

Искать...

НОВОСТИ | ОБ ИНСТИТУТЕ | ДЕЯТЕЛЬНОСТЬ | МУЛЬТИМЕДИА | КОНТАКТЫ

новости

В Санкт-Петербурге обсудили проблемы «горячих точек» Баренцова региона

Текст: ФГБУ «ВНИИ Экология»

В Санкт-Петербурге в период с 27 по 29 января состоялся тренинг-семинар «Горячие точки Баренцева региона: наилучшие доступные технологии, комплексные экологические разрешения и программы повышения экологической результативности предприятий I категории».

Мероприятие прошло в Экологическом центре Водоканала СПб. В нем приняли участие представители Минприроды Санкт-Петербурга, Росприроднадзора, Республики Карелия, международные эксперты, члены финансовой организации НЕФКО, Шведского Агентства по охране окружающей среды, представители региональной исполнительной власти, сотрудники учебных, научных, проектных, консультационных и других организаций. От ФГБУ «ВНИИ Экология» в семинаре принял участие Р.О. Бутовский, руководитель НМЦ «Технология».

В рамках семинара ведущие республиканские и зарубежные эксперты представили доклады, посвященные принципам наилучших доступных технологий, и обозначили конкретные проблемы на территории СЗФО, а также рассказали о процедуре и критериях исключения объектов негативного воздействия из списка «горячих точек».

Данный семинар является очередным отраслевым семинаром в рамках программы обучения, разработанной Подгруппой по исключению горячих точек из Списка Баренц-региона Рабочей группы по охране окружающей среды (РГОС) Совета Баренцева Евро-Арктического Региона (БЕАР).

https://eipc.center/news/ispolzovanie-principov-ndt-dlya-vypolneniya-mezhdunarodnyh-obyazatelstv-rossijskoj-federacii-1

ФГАУ «НИИ «ЦЭПП»
 Федеральное Государственное Автономное Учреждение «Научно-Исследовательский
 Институт «Центр экологической промышленной политики»

О НАС | ДЕЯТЕЛЬНОСТЬ | НОВОСТИ | КОНТАКТЫ | ЛИЧНЫЙ КАБИНЕТ | ПРОТИВОДЕЙСТВИЕ КОРРУПЦИИ



ИСПОЛЬЗОВАНИЕ ПРИНЦИПОВ НДТ ДЛЯ ВЫПОЛНЕНИЯ МЕЖДУНАРОДНЫХ ОБЯЗАТЕЛЬСТВ РОССИЙСКОЙ ФЕДЕРАЦИИ: ТЕОРИЯ И ПРАКТИКА

27.01.2020

27-29 января 2020 г. в г. Санкт-Петербурге проходит заключительный семинар международного проекта, посвященного использованию принципов наилучших доступных технологий в качестве инструментов исключения двух пилотных объектов Баренцева региона Российской Федерации из перечня экологических «горячих точек».

Мероприятие проходит на базе и при поддержке одного из крупнейших предприятий по очистке коммунальных сточных вод –

Огни ВЫЧЕГДЫ

ЛИДЕРЫ-2019:
ЗА ЧИСТУЮ ВОДУ

3 страница

ЭКВАТОР ПРОЕКТА
ДЛЯ ШКОЛЬНИКОВ

4-5 страница

ПРЕИМУЩЕСТВЕННОСТЬ:
ЛЕСНЫЕ ИНЖЕНЕРЫ

6 страница



Главный эколог Монди СЛПК Дмитрий Очеретнюк рассказывает о результатах выполнения программы повышения экологической эффективности комбината.

МОНДИ СЛПК ИСКЛЮЧИЛИ ИЗ СПИСКА ЭКОЛОГИЧЕСКИХ «ГОРЯЧИХ ТОЧЕК»

Такое решение принято 5 февраля на 14-й встрече министров окружающей среды Баренцева/Евроарктического региона (БЕАР).
Подробности читайте на 2 странице.

