

Climate project methodology № 0020

THE TECHNOLOGY OF USED LUBRICATING OIL REGENERATION
(Version 2.0)

Developer: SRO "Association "Clever"

Moscow, 2023

TABLE OF CONTENTS

1. TERMS AND DEFINITIONS	3
2. SCOPE AND APPLICABILITY	4
3. BASELINE DETERMINATION	10
4. PROJECT CREDITING PERIOD	13
5. ADDITIONALITY	13
6. MONITORING PLAN REQUIREMENTS	13
7. PROJECT SCENARIO	15
8. LEAKAGE ASSESSMENT	17
9. NON-PERMANENCE RISK ANALYSIS	18
10. METHODS TO PREVENT DOUBLE COUNTING, NEGATIVE IMPACTS ON THE ENVIRONMENT AND SOCIETY	18
11. NORMATIVE REFERENCES	19

1. TERMS AND DEFINITIONS

For the purpose of this methodology, the following definitions apply:

Project - a project for the disposal of used lubricating oils by regeneration to produce base oil;

base oils - liquids of mineral and/or synthetic (semi-synthetic) origin obtained by refining oil or waste oil, used as raw materials for the production of lubricating oils;

lubricant oils - products based on base oil used as a lubricant in friction units of automotive equipment, industrial machinery and mechanisms, as well as in everyday life to reduce wear caused by friction;

used lubricating oils - lubricating oils that have lost their consumer properties, collected separately or in a mixture;

recycling of used lubricating oils - full or partial restoration of their original properties for use for their original or other purposes, including the production of similar products (incl. basic oils) the use of oils as raw materials for the production of commercial petroleum products or other products;

used lubricating oils regeneration – preparation and processing (purification) of used lubricating oils for the production of base oils;

secondary waste (by-products) - waste (by-products) obtained during the regeneration of used lubricating oils;

used lubricating oil regeneration plant - a plant that regenerates used lubricating oil at specialized incinerators in order to obtain base oil;

used oil combustion plant – a plant where used lubricating oil is combusted in a specialized incinerator;

regeneration facility – an installation designed to remove the main pollutants from used lubricating oils through physical or chemical treatment methods (sedimentation; filtration; centrifugal cleaning; adsorption; coagulation; thermal vacuum drying; selective dissolution of waste oil pollutants and others);

incinerator – specialized plant for safe thermal effects on used lubricating oil (except for pyrolysis technology), including for the production of electricity and heat;

market practice — this is a set of methods and real approaches that are used in the field of waste lubricating oil management, including procedures, methodologies, techniques, rules,

requirements, norms and accepted business practices that market participants apply to achieve certain goals;

the territory of the operational activity of the Project plant – the region where it is planned to collect used lubricating oil for further regeneration within the framework of project activities;

crediting period - the period in which verified and certified GHG emission reductions or increases in net anthropogenic GHG removals by sinks attributable to a climate project activity, as applicable, can result in the issuance of carbon units.

GHG - greenhouse gases listed in the "List of greenhouse gases for which the state accounting of greenhouse gas emissions and the maintenance of the greenhouse gas inventory is carried out" (Decree of the Government of the Russian Federation No. 2979-r of October 22, 2021);

CO₂ – carbon dioxide;

CH₄ – methane;

N₂O - nitrous oxide (dinitrogen monoxide);

C – carbon.

2. SCOPE AND APPLICABILITY

2.1. APPLICABILITY OF THE METHODOLOGY

The methodology is applicable to project activities for the regeneration of used lubricating oils that would otherwise be burned in accordance with current market practice.

The methodology is applicable under the following conditions:

- the main product obtained through used lubricating oil regeneration would not be used as fuel;
- used lubricating oils that are regenerated as part of the Project activities have been combusted at specialized installations for at least the last three years prior to the start of this activity in accordance with current market practices;
- the process of disposal of used lubricating oil by pyrolysis to obtain other products is not considered incineration;
- during the regeneration of lubricating oil, the production of fuel from by-products (waste) of the regeneration process of used lubricating oils is allowed.

After confirming the compliance of the project boundaries and the baseline, it is possible to use this methodology for other projects for the disposal of used oils of various types, including:

- oil cleaning with full or partial recovery of the original properties of used lubricating oil;
- recovery of the original properties of the collected used oil of a certain brand;

- processing of waste lubricating oil to obtain raw materials for the production of commercial petroleum products or other products (excluding fuel).

It is necessary to use coefficients from the Methodology for Quantifying Greenhouse Gas Emissions (Order of the Ministry of Natural Resources of Russia dated May 27, 2022 № 371) to calculate GHG for the purposes of this methodology for projects implemented within the framework of the national carbon market, for projects presented at the international level, coefficients from the "IPCC Guidelines for National Greenhouse Gas Inventories (IPCC Guidelines)" can be used as an alternative (IPCC 2006).

In case of changes in the GHG regulatory legal framework of the Russian Federation, this methodology may be revised in order to take into account the relevant changes.

2.2. PROJECT BOUNDARY

The project boundary encompasses:

- Production sites for combustion of used lubricating oils;
- The recycling facility for regeneration of used lubricating oils;
- A fossil fuel combustion plant within the boundaries of a waste lubricating oil regeneration facility;
- A heat/power plant located outside the boundaries of a waste lubricating oil regeneration enterprise and producing electricity/heat necessary for the process of regeneration of used lubricating oil.

The list of sources, types of activities and greenhouse gases included and not included in the Project boundaries are presented in Tables 1 and 2, the general scheme of the Project boundaries is shown in Figure 1.

Table 1. List of types of activities outside the project boundaries of this Methodology.

Type of activity outside the project boundaries	Inclusion in project boundaries	Justification / Explanation
Crude oil exploration, production and primary processing	Excluded	Exploration, production, primary processing, transportation and processing of crude oil have been excluded from the boundaries on the grounds that the oil produced is likely to be processed into products other than lubricants,
Crude oil transportation	Excluded	

Type of activity outside the project boundaries	Inclusion in project boundaries	Justification / Explanation
Crude oil refining	Excluded	<p>which indicates that this activity will remain unchanged.</p> <p>Excluding these activities, the project maintains a clear framework and focuses on reducing emissions from used lubricating oil processing.</p>
Base oils production	Excluded	The percentage of substitution by regenerated base oils for primary base oils in this methodology is considered negligible and does not affect their production.
Lubricating oils production	Excluded	The process of producing lubricating oils from regenerated and base lubricating oils is considered identical and unchanged within this methodology.
Collecting, storage and transportation of used lubricating oils	Excluded	The process of collecting and accumulating used lubricating oils for the purpose of regeneration or combustion is considered identical and unchanged within this methodology. It is assumed that the average total distance to be overcome for the delivery of products to the combustion site is identical to that required for the transportation of waste oil to the regeneration plant.
Wastewater treatment	Excluded	Emissions from wastewater treatment are negligible.
Distribution and use of regenerated lubricating oils	Excluded	Distribution and use of regenerated lubricating oils is considered identical to the process of distribution and use of primary lubricating oils and unchanged within this methodology.

Type of activity outside the project boundaries	Inclusion in project boundaries	Justification / Explanation
Restructuring of energy/heat consumption, due to the need to obtain electricity / heat, which were previously generated by combustion used lubricating oils, from other sources	Excluded	Emissions from alternative sources of electricity/fuel heat can be attributed to leakages (if applicable) and moved outside the project boundaries, since the functioning of their sources is not under the control and influence of the initiator of the project.
Sales of secondary products as fuel	Excluded	The use of such fuels is more likely to replace alternative fossil fuels with similar properties and composition, so the difference in emissions is considered to be small.
Waste decontamination by third parties	Excluded	Emissions from combustion-based waste treatment are classified as leakages and released outside the project, as the operation of their sources is not under the control and influence of the proponent.

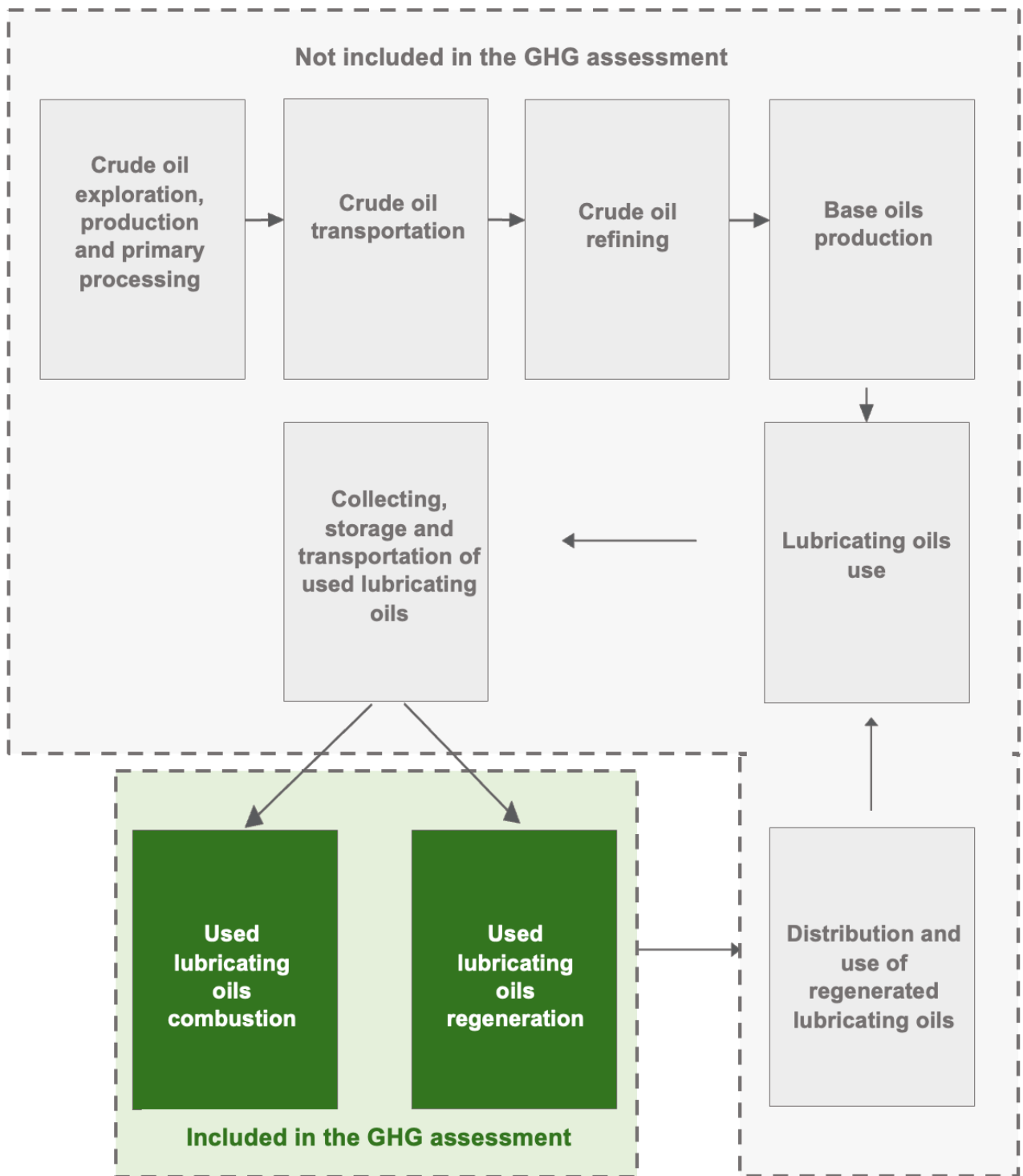
Table 2: List of GHG emission sources in the baseline and project scenarios included and excluded from the overall quantitative assessment under this Methodology.

Scenario	The source of emission	GHG	Included	Justification / Explanation
Baseline scenario	Combustion of used lubricating oils at the specialized incinerator	CO ₂	YES	The main source of emissions in the baseline
		CH ₄	NO	Assumed negligible
		N ₂ O	NO	Assumed negligible

Scenario	The source of emission	GHG	Included	Justification / Explanation
Project scenario	The processing of lubricating oil at the regeneration plant	NO	NO	Assumed negligible
	Indirect emissions from the use of external sources of electricity/heat (from the grid) at the enterprise for the operation of the used lubricating oil regeneration plant	CO ₂	YES	The main source of emissions in the project scenario
		CH ₄	NO	Assumed negligible
		N ₂ O	NO	Assumed negligible
	Emissions from fuel combustion at the enterprise as part of the processes for the regeneration of used lubricating oils	CO ₂	YES	The main source of emissions in the project scenario
		CH ₄	NO	Assumed negligible
		N ₂ O	NO	Assumed negligible
	Emissions from the treatment of by-products (waste) of the process of regeneration of used lubricating oil at the site of the enterprise	CO ₂	NO	Assumed negligible
		CH ₄	NO	Assumed negligible
		N ₂ O	NO	Assumed negligible
	Emissions from the treatment of oily wastewater from the process of regeneration of lubricating oil at the site of the enterprise	CO ₂	NO	Assumed negligible
		CH ₄	NO	Assumed negligible
		N ₂ O	NO	Assumed negligible

If the facilities within the project boundary as specified in this methodology are owned by different legal entities (or are under the operational management of different legal entities), then the project documentation should include a description of procedures for eliminating the possibility of double counting in GHG emission reductions potentially achieved as a result of project activities, enshrined in contractual agreements.

Figure 1. Schematic illustration of the project boundary.



3. BASELINE DETERMINATION

The minimum requirements for determining the baseline for climate (offset) projects implemented and producing carbon units on the territory of the Russian Federation are defined in the document "On Approval of criteria and Procedure for Assigning Projects Implemented by Legal Entities, Individual Entrepreneurs or Individuals to climate projects, the form and procedure for

submitting a report on the implementation of a climate project" (Order of the Ministry of Economic Development of Russia dated 11.05.2022 No. 248). In other cases, when identifying the baseline and calculating emissions, it is recommended to adhere to approved programs for the implementation of climate projects at the international level.

The baseline¹ is set conservatively² for a business-as-usual activity, taking into account all existing policies and measures, but without considering additional project activities (Business-as-usual model). In this methodology, waste oil market practice considers the combustion of waste oils during the Project period as a common practice. If this situation changes, the project developer should reconsider the approach to the baseline.

To determine the baseline, the Project Developer should demonstrate that in the absence of Project activities, the used lubricating oil intended for collection and referral to the regeneration enterprise will be combusted, by any of the following options:

- analysis of the used lubricating oil market;
- provision of various documentation, which will demonstrate that the used lubricating oil is planned to be received from specific enterprises that previously combusted it;
- demonstrating that the use of other types of disposal for waste oils intended to be collected on the territory of the operating activity of the regeneration enterprise is technically impossible or economically impractical; demonstrating that the use of other forms of recycling for intended/collected used oils in the operating area of the recovery facility is technically impossible or uneconomical.

The project developer can apply one of the following approaches to determining the baseline:

- if the company has been operating for more than 3 years, it is possible to use retrospective data on the amount of used lubricating oil received for regeneration and its origin;
- the established practice of the market of used lubricating oils in the region of the operational activity of the Project enterprise or in the Russian Federation for the last 3 years is taken into account (the following types of documents can be used as evidence: state or industry market analyses or statistical reports providing data on production, consumption, disposal and other aspects of handling used oils in this industry, reports from companies specializing in the collection of, processing and disposal of used oils or related to this industry, expert opinions, researches, agreements and contracts

¹ Greenhouse gas baseline, GHG baseline - quantitative reference(s) of GHG emissions and/or GHG removals that would have occurred in the absence of a GHG project and provides the baseline scenario for comparison with project GHG emissions and/or GHG removals (ISO 14064-2:2019 Greenhouse gases - Part 2).

² Calculation of the baseline is considered conservative if the final estimate of emission reductions resulting from project activities will not be overestimated. If there is any doubt, the project developer should better understate the baseline projection.

between market participants and any other documents provided by the initiators of the project, which form the evidence base for determining the baseline of the project). The initiator of the project must provide at least two pieces of evidence from the above (it is possible to provide both different types of evidence and different evidence within the same type).

If other situation exists or is foreseen, the Project developer should develop a methodological approach to clarify the baseline, taking into account the possibility of alternative scenarios for handling part of the spent lubricating oil.

Baseline emissions

This methodology assumes that at the stage of removal of spent lubricating oil, the main GHG emissions occur as a result of its combustion at specialized incinerators. However, such emissions can be prevented by increasing the volume of regeneration of used lubricating oil.

Emissions from the baseline are calculated as CO₂ emissions from stationary combustion of fuel (Order of the Ministry of Natural Resources of the Russian Federation No. 371 dated May 27, 2022) based on the amount of spent lubricating oil regenerated as a result of the Project activity using formula (1):

$$BE_y = FC_y \times NCV_y \times EF_y \times OF \quad (1)$$

Where:

BE_y - Baseline emissions from the combustion of used lubricating oil, which were avoided due to regeneration, during the reporting period *y* in t CO₂;

FC_y - The total amount of used lubricating oil that could have been combusted during the reporting period *y* in thousand t;

NCV_y - Net calorific value of lubricating oil during the reporting period *y* in TJ/thousand t;

EF_y - CO₂ emission factor from stationary combustion for reporting period *y* in t CO₂/TJ;

OF – fuel oxidation factor.

Baseline emissions from the combustion of used lubricating oils at specialized incinerators are calculated based on the data of the Project enterprise on its design or actual capacity for the regeneration of used oil.

If the Project developer has the actual values of *NCV_y* and Carbon content for the used lubricating oil expected to be regenerated/regenerating (no more than 3 years old) they can be used in calculations according to formula (1) using Equation 1.5 (Order of the MNR of Russia No. 371, Appendix 2), and in the absence or non-representativeness of such data, the default values given in Table 3 can be used.

Таблица 3. Default Values for Baseline Emissions

Parameter	Value	Source
Net calorific value of lubricating oils, NCV	40,2 TJ/thousand t	Order of the MNR of Russia No. 371, Appendix 2 Table 1.1 (IPCC, 2006, table 1.2)
CO ₂ emission factor for lubricating oils, EF	73,3 t CO ₂ /TJ	Order of the MNR of Russia No. 371, Appendix 2, Table 1.1 (IPCC, 2006, Table 2.3, for stationary combustion in manufacturing and construction industries)
Oxidation factor, OF	1	Order of the MNR of Russia No. 371, Appendix 2 item 1.7 (IPCC, 2006)

4. PROJECT CREDITING PERIOD

The starting date of project activities is not regulated

A crediting period for emission reduction projects is up to 15 years with no option of renewal which corresponds to the type of activity. In accordance with Russian legislation, the crediting period begins no earlier than 5 years prior to applying for validation and the registration of the project in the Registry Carbon Units.

5. ADDITIONALITY

Additionality shall be demonstrated using Guidelines №1 Demonstration of the additionality of the project activity.

6. MONITORING PLAN REQUIREMENTS

All the parameters specified in Table 4 should be included in the monitoring of the project during the reporting period. All data collected as part of monitoring should be archived electronically and be kept at least for two years after the end of the last crediting period. All measurements must be carried out using calibrated measuring equipment in accordance with industry standards.

During the entire crediting period of the project, monitoring should be carried out on an annual basis, as well as after the end of the project.

Table 4: Data / Parameter monitored

Parameter	Data unit	Monitoring frequency	Note
Net calorific value of all types of fossil fuels used to generate electricity for the operation of the regeneration plant*	TJ/thousand t	Monthly and every time fuel consumption changes	Fuel supplier documentation, based on laboratory measurement data
The total volume of used lubricating oil supplied for regeneration during the reporting period	t	Monthly	Data from purchasing reports, based on flow meters and weight control data
The carbon content in various types of fossil fuels used to generate electricity for the operation of the regeneration plant*	t C/ton of fuel	Monthly and every time fuel consumption changes	Fuel supplier documentation, based on laboratory measurement data
Net calorific value of the fuel burned to generate electricity for the operation of the regeneration plant*	TJ/thousand t	Monthly	Data of laboratory measurements of the regeneration enterprise (or on its order)
Electricity consumption for the operation of the regeneration unit for the reporting period*	kWh	Monthly	Measurement with electric power meters
CO ₂ emission factor for electricity consumed from the grid	g CO ₂ /kWh	Annually and every time energy consumption changes	Data from electricity suppliers or calculation according to the "Methodological guidelines for quantifying the volume of indirect energy emissions of greenhouse gases" (Order of

Parameter	Data unit	Monitoring frequency	Note
			the MNR of Russia No. 330)

* - if there is no clear division of energy/heat/fuel consumption for the operation of the regeneration plant and other activities of the Project enterprise, a conservative approach is applied, where data on the consumption of the entire production site of the enterprise is used.

7. PROJECT SCENARIO

7.1 Project emissions

Project emissions are determined based on the needs of the regeneration enterprise for electricity/heat in the course of its activities, as well as the selected method of waste disposal.

Total project emissions are calculated using the formula (2):

$$PE_y = PE_{f,y} + PE_{el,y} \quad (2)$$

Where

PE_{\square} - Project emissions during the reporting period y in t CO₂;

$PE_{f,\square}$ - Project emissions from the combustion of fossil fuels within the boundaries of the regeneration enterprise during the reporting period y in t CO₂;

$PE_{el,\square}$ - Project indirect emissions from electricity/heat consumption for the operation of the regeneration plant during the reporting period y in t CO₂;

For calculations, the project developer must decide on the possibility of a clear division of energy/heat/ fuel consumption for the operation of the regeneration plant and conducting other Project activities, as well as the possibility of monitoring it. If it is impossible to apply this approach, a conservative approach is used, where data on the consumption of the entire production site of the enterprise is used.

All project emissions during the project implementation period are calculated based on monitoring data.

Project emissions from the use of fossil fuels for the operation of the regeneration plant:

If the electricity/heat required to operate a waste lubricating oil recovery plant is generated from fossil fuels within the facility, emissions from combustion are calculated as CO₂ emissions from

stationary fuel combustion (Order of the Ministry of Natural Resources of the Russian Federation No. 371 of May 27, 2022) under formula (3).

$$PE_{f,y} = \sum n((EF_{j,y} \times NCV \times EF \times GWP) \div 1000) \quad (3)$$

Where:

$PE_{f,y}$ - Project emissions from the combustion of fossil fuels used at the enterprise (including by-products) during the reporting period y in t CO₂

$EF_{j,y}$ - Total amount of fossil fuel used during the reporting period y in thousand t, thousand m³;

$NCV_{j,y}$ - Net calorific value of fuel in TJ/thousand t, TJ/million m³;

EF - CO₂ emission factor in kg/TJ;

j - type of fuel used for combustion

n – number of fuels used during the period y

In the absence of actual data (monitoring data), the coefficients are calculated in accordance with Part 1 of Annex No. 2 and Table 1 (Order of the Ministry of Natural Resources of the Russian Federation No. 371 dated May 27, 2022).

Project indirect emissions from the use of electricity/heat for the operation of the regeneration plant:

If the electricity/heat required for the operation of the spent lubricating oil recovery plant is supplied from the grid, GHG emissions are calculated according to the "On approval of methods for quantitative determination of the volume of indirect energy greenhouse gas emissions" (Order of the Ministry of Natural Resources of the Russian Federation No. 330 dated June 29, 2017). Quantitative determination of the volume of indirect energy emissions can be carried out both by regional and market methods.

Project emissions from waste incineration of waste oil regeneration:

All potential sources of GHG emissions are included in the project boundaries (Table 1), therefore, within the framework of this Methodology, there are no emissions from the incineration of waste from the regeneration of used oil. In cases where carbon-containing waste from the regeneration process is neutralized by incineration within the framework of the project, the calculation of GHG emissions from them is carried out according to the "Methodological Guidelines for Quantifying the volume of indirect energy emissions of Greenhouse gases" (Order No. 330 of the MNR of the Russian Federation dated June 29, 2017) as CO₂ emissions from waste incineration (or from the burning of liquid fossils waste).

In the absence of actual data (monitoring data), the coefficients are determined in accordance with the data in Table 20.4 of Appendix No. 2 for the indicator "petroleum products, solvents and plastics" (Order of the Ministry of Natural Resources of the Russian Federation No. 371 dated May 27, 2022).

7.2 Emission reductions

As shown in formula (4), the reduction of GHG emissions from the Project is determined by comparing the amount of emissions generated as a result of the Project activities and base emissions, taking into account GHG emissions from leaks.

$$ER_y = BE_y - PE_y \quad (4)$$

Where:

ER_y - Emissions reductions of the project activity during the year y in t CO₂;

BE_y - Baseline emissions during the year y in t CO₂;

PE_y - Project emissions during the year y in t CO₂.

In cases where leakages occur within the framework of the project, they should be taken into account and deducted from the volume of reduced greenhouse gas emissions for the reporting period and calculated using the following formula:

$$ER_y = BE_y - PE_y - LE_y \quad (5)$$

Where:

ER_y - Emissions reductions of the project activity during the year y in t CO₂;

BE_y - Baseline emissions during the year y in t CO₂;

PE_y - Project emissions during the year y in t CO₂;

LE_y - Leakage emissions in the year y in t CO₂.

8. LEAKAGE ASSESSMENT

All potential sources of GHG emissions are included in the project boundaries, therefore, under this Methodology carbon leakages should be excluded from the calculation of greenhouse gas emission reductions in the project.

In cases where leakages occur within the Project activities, they should be taken into account and deducted from the volume of reduced greenhouse gas emissions during the reporting period and calculated in accordance with the approach below (see formula 5).

Carbon leakages due to changes in heat/energy consumption

Carbon leaks associated with changes in the structure of heat/energy consumption within the framework of this Methodology have been moved beyond the Project boundaries, since the operation is not under the control and influence of the initiator of the project, as well as due to the lack of evidence to determine a single scenario for handling oils in the event of a change in the structure of heat /energy consumption.

In case of detection of carbon leakages associated with changes in the structure of heat/energy consumption, the Project developer should estimate GHG emissions from heat/electricity production used instead of spent lubricating oil regenerated within the project:

- In case, if electricity/heat is generated by combustion fossil fuels on the consumer's territory, GHG emissions are calculated in accordance with the Order of the Ministry of Natural Resources of the Russian Federation No. 371 dated May 27, 2022;
- In case, if the consumption of electricity/heat purchased from the grid is assumed, GHG emissions are calculated in accordance with the Order of the Ministry of Natural Resources of the Russian Federation No. 330 dated June 29, 2017.

The Project developer can rely on data on the study of the behavior and technical capabilities of consumers in the territory of the operational activity of the regeneration enterprise to calculate emissions from such leakages, and in case of their absence, a conservative scenario should be used in which consumers use natural gas as an alternative source of energy/heat.

9. NON-PERMANENCE RISK ANALYSIS

Not applicable to the project activity.

10. METHODS TO PREVENT DOUBLE COUNTING, NEGATIVE IMPACTS ON THE ENVIRONMENT AND SOCIETY

Climate project should demonstrate its compliance with all legal requirements in the jurisdiction where it is located. Project developer should question whether there is a risk that their project might result in negative impacts for local communities, biodiversity and the environment. Such projects should not cause an increase in environmental pollution as well as lead to any community conflicts, human rights violations, or worsened health and wellbeing.

Efforts should be made to avoid double counting between the subjects of the Russian Federation and different countries in the case of international transfer of carbon credits. In the latter case, it is necessary to demonstrate that the carbon credits transferred at the international level are excluded from the accounting of the quantitative goals of the defined at the national level contribution of the Russian Federation

11. NORMATIVE REFERENCES

1. GOST R ISO 14064-1-2021. National Standard of the Russian Federation. Greenhouse gases. Part 1. Requirements and Guidance for Quantification and Reporting of Greenhouse Gas Emissions and Absorption at the Organization Level (approved and enacted by Rosstandart Order No. 1029-st dated 30.09.2021).
2. GOST R ISO 14064-2-2021. National Standard of the Russian Federation. Greenhouse gases. Part 2. Requirements and Guidelines for Quantification, Monitoring and Reporting Documents 18/19 for Projects to Reduce Greenhouse Gas Emissions or Increase Their Absorption at the Project Level (approved and enacted by Order No. 1030-st of Rosstandart dated September 30, 2021).
3. GOST R ISO 14064-3-2021. National Standard of the Russian Federation. Greenhouse gases. Part 3. Requirements and Guidance for Validation and Verification of Greenhouse Gas Statements (approved and enacted by Rosstandart Order No. 1031-st of 30.09.2021).
4. GOST R ISO 14080-2021. National Standard of the Russian Federation. Greenhouse Gas Management and Related Activities. System of approaches and methodological support for the implementation of climate projects (approved and enacted by Order of Rosstandart No. 1033-st dated 30.09.2021). 9 O
5. IPCC 2006. Guidelines for National Greenhouse Gas Inventories of the Intergovernmental Panel on Climate Change, 2006 / Edited by S. Iggleston, L. Buendia, K. Miwa, T. Ngara and K. Tanabe. // T.1-5. - IGES// Hayyam. 2006.
6. Order of the Ministry of Natural Resources of Russia dated June 29, 2017 № 330 « On approval of methods for quantitative determination of the volume of indirect energy greenhouse gas emissions».
7. Order of the Ministry of Natural Resources of Russia dated May 27, 2022 № 371 «On approval of methods for quantitative determination of greenhouse gas emissions and greenhouse gas removals» (from March 1, 2023, except for certain provisions, coming into force on March 1, 2024).
8. Order of the Ministry of Economic Development of Russia dated 11.05.2022 № 248 «On approval of the criteria and procedure for attributing projects implemented by legal entities, individual entrepreneurs or individuals to climate projects, the form and procedure for reporting on the implementation of a climate project» (registered with the Ministry of Justice of Russia on 30.05.2022, № 68642).

9. Decree of the Government of the Russian Federation No. 2979-r dated October 22, 2021 «List of greenhouse gases for which state accounting of greenhouse gas emissions and maintaining a greenhouse gas inventory is carried out».