

GUIDE FOR USING THE SOFTWARE

Pollutant Release and Transfer Register

FOR THE OPERATORS

July 2024

The preparation of this material was supported by the project "Enhancement of Pollutant Release and Transfer Registers (PRTRs) in the Western Balkan Countries and the Republic of Moldova", which was financed by the German Federal Ministry of the Environment with funds from the Advisory Assistance Program (AAP)) for environmental protection in the countries of Central and Eastern Europe, the Caucasus and Central Asia as well as other countries bordering the European Union. It was supervised by the German Environment Agency (UBA) and implemented by Participatio Ltd. in partnership with EcoContact, REC Albania, REC BiH and REC Montenegro

Contents

User registration	3
Approval of the application for registration of a company	9
Initial registration of the user account	9
Creating a password	10
Forgotten password.....	12
First login	13
Menu commands	14
User settings	14
Data entry	15
Creation of a user.....	15
Creating facility.....	17
Adding a source of pollution.....	20
Reporting	26
Entering general data about the facility	27
Adding products.....	31
Air emission	34
Emission into water.....	40
Waste generation	51

User registration

You can start the user registration on the following website <https://prtr.rhmzrs.com/> or by clicking on the link on the PRTR portal page <https://prtrportal.rhmzrs.com/>.

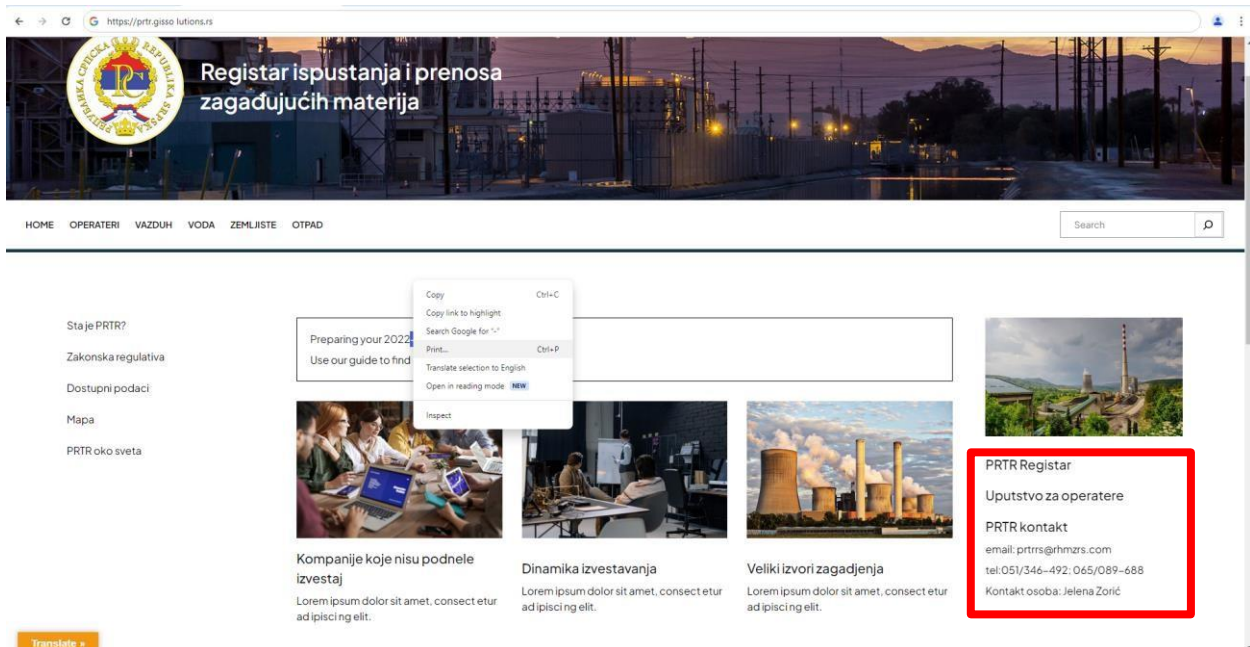


Fig. 1 The start page of the PRTR portal with a highlighted link to the PRTR application.

After you have selected one of the options for accessing the PRTR application, you will see the following page:

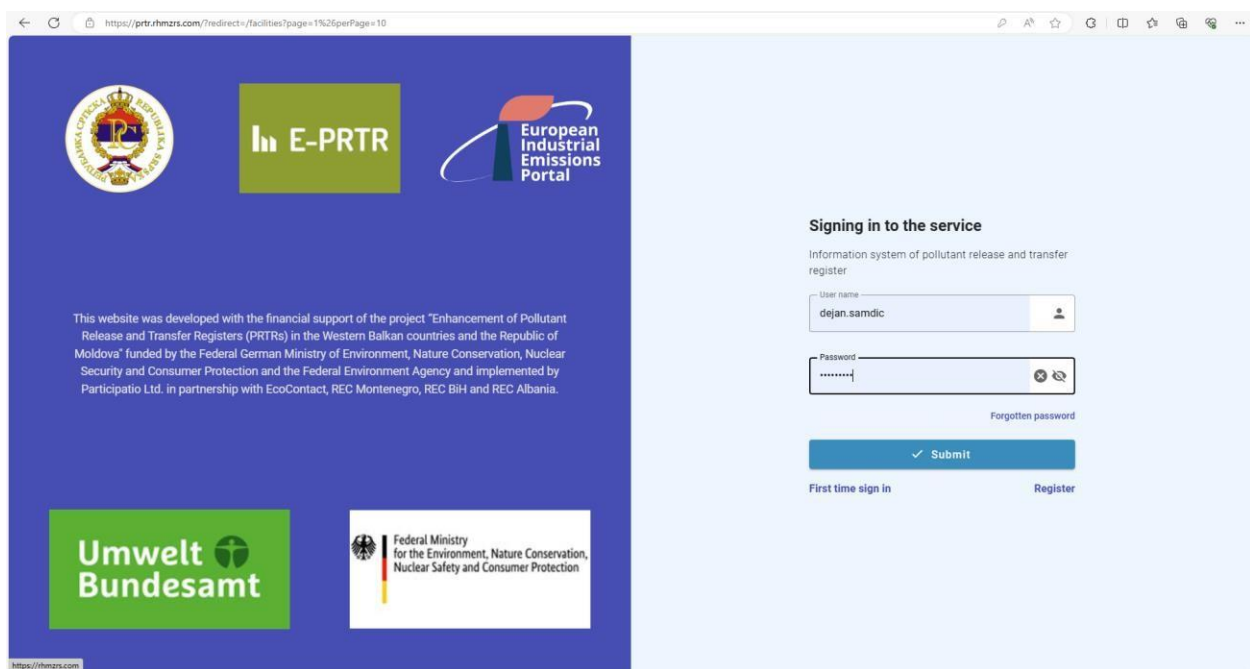


Fig. 2 Home page of the PRTR application

The page contains the following fields (Fig. 3.):

1. The field in which the user name is entered
2. The field in which the user's password is entered
3. Link to change a forgotten password
4. Link to user registration
5. Link for initial login Button for user login
6. Submit button

The screenshot shows a login page titled "Signing in to the service" for the "Information system of pollutant release and transfer register". It features a "User name" field with the text "dejan.samdic" (labeled 1), a "Password" field with masked characters (labeled 2), and a "Forgotten password" link (labeled 3). Below the password field is a blue "Submit" button with a checkmark icon (labeled 6). At the bottom, there are two links: "First time sign in" (labeled 5) and "Register" (labeled 4).

Fig. 3. Display of functions on the login page of the PRTR application

User registration means two things:

1. Registration of a company that is required to report to the PRTR
2. Registration of the user who represents the company and who is the technical contact person on behalf of the company for reporting under the PRTR and who communicates with the institution responsible for the PRTR. When registering, basic data about the company, data about the responsible person of the company who will sign the annual report and the person who will be responsible for PRTR reporting in the company are entered. The person responsible for PRTR reporting in the business entity is given the status of the administrator of the business entity (hereinafter referred to as the CA). The tasks of the CA are the creation and deactivation of application users and the definition of facilities that generate emissions or waste.

The user registration process is started by clicking on the REGISTER link (item no. 4), which opens a window as shown (Fig. 4.).

Fig. 4. Form for entering the data required to register a company

In order to standardize the database, it is suggested that all data be entered in Latin script only.

The data entered during registration is divided into three section:

1. Data identifying the business entity
2. Data on the person responsible for the business entity
3. Data on the person responsible for the PRTR declaration

Section 1. - Information about the company:

1. Name of the company
2. Main economic activity of the business entity
3. Registration number of the business entity
4. Tax identification number of the business entity - VAT
5. Address of the company (including street and house number)
6. Municipality in the territory of which the seat of the business entity is located
7. The settlement on the territory of which the seat of the business entity is located
8. Postal code
9. FAX number
10. Telephone number
11. E-mail address – enter the e-mail address of the business entity, which can be determined by checking the affiliation to the business entity.

Section 2. - Information about the responsible person

A responsible person is a person who may bear legal responsibility for the fulfillment of a company's reporting obligation to the PRTR and a person who signs the annual report for the PRTR

The data collected about the responsible person (Fig. 4.) as part of the registration are:

12. First and last name of the responsible person
13. Telephone number
14. Personal e-mail address used for business communication

Details of the person responsible for the PRTR report (Fig. 4.)

15. First and last name of the person responsible for the PRTR report
16. Telephone number
17. Personal e-mail address

In addition to the details of the company and the person responsible for the PRTR notification, the following documents must be submitted in ADOBE PDF format:

18. Decision on the registration of a business entity
19. Environmental permit issued to the facility by the competent authority

The above documents are used to verify the authenticity of the facility to be registered.

When entering data in the registration form, a series of data checks are carried out. All fields of the form must be completed. If one of the fields is not completed, it will be marked red and the registration process cannot be continued

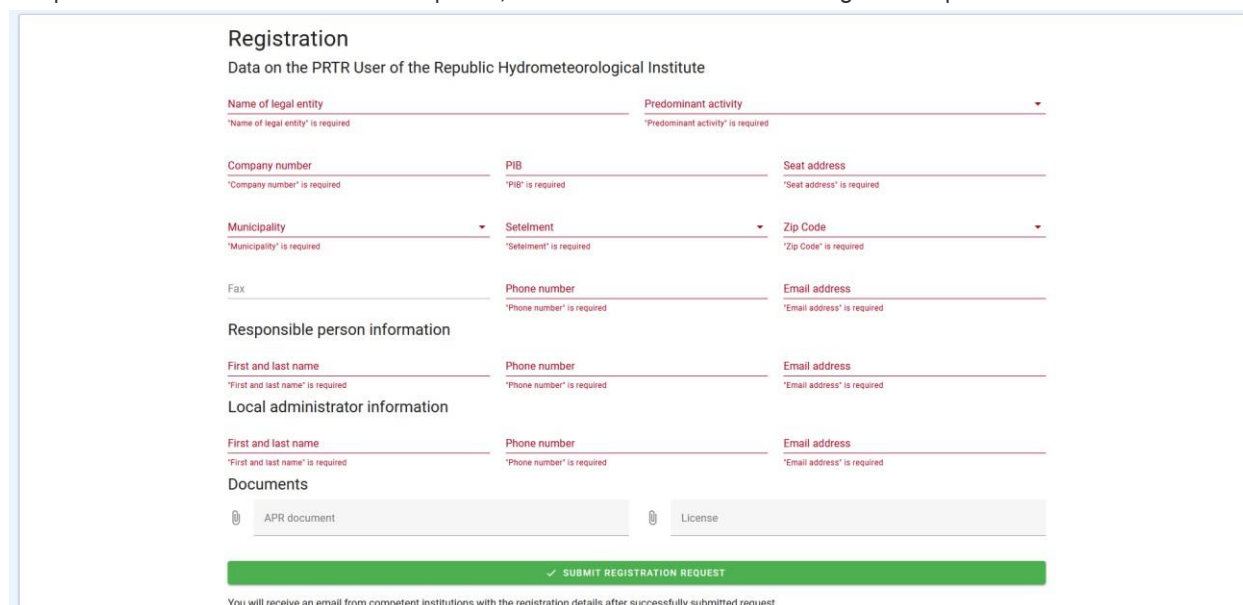


Fig. 5. Fields that are mandatory will be highlighted in red when you attempt to submit a registration request (e.g. if all fields are left blank)

If an incorrect value is entered in a field, this field is highlighted in red after switching to another field to indicate that the data entered is incorrect (Fig. 6)



Fig. 6. Example of incorrectly or incompletely entered data in a field

In the fields containing an arrow (Fig.7a.), clicking on the arrow opens a list in which we can select one of the offered values.



Fig. 7a. Field in which one of the offered values is selected

Municipality

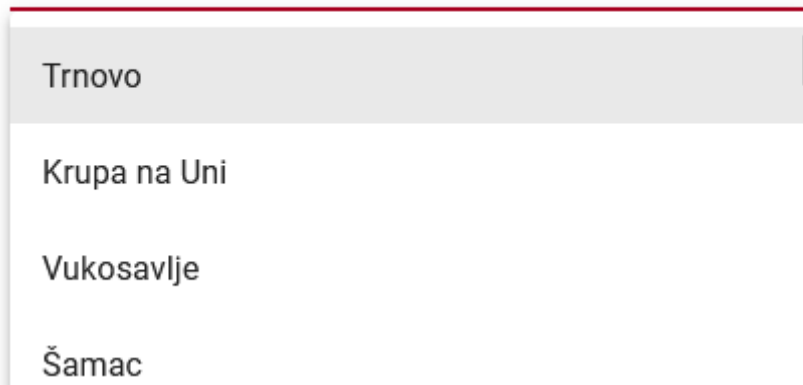
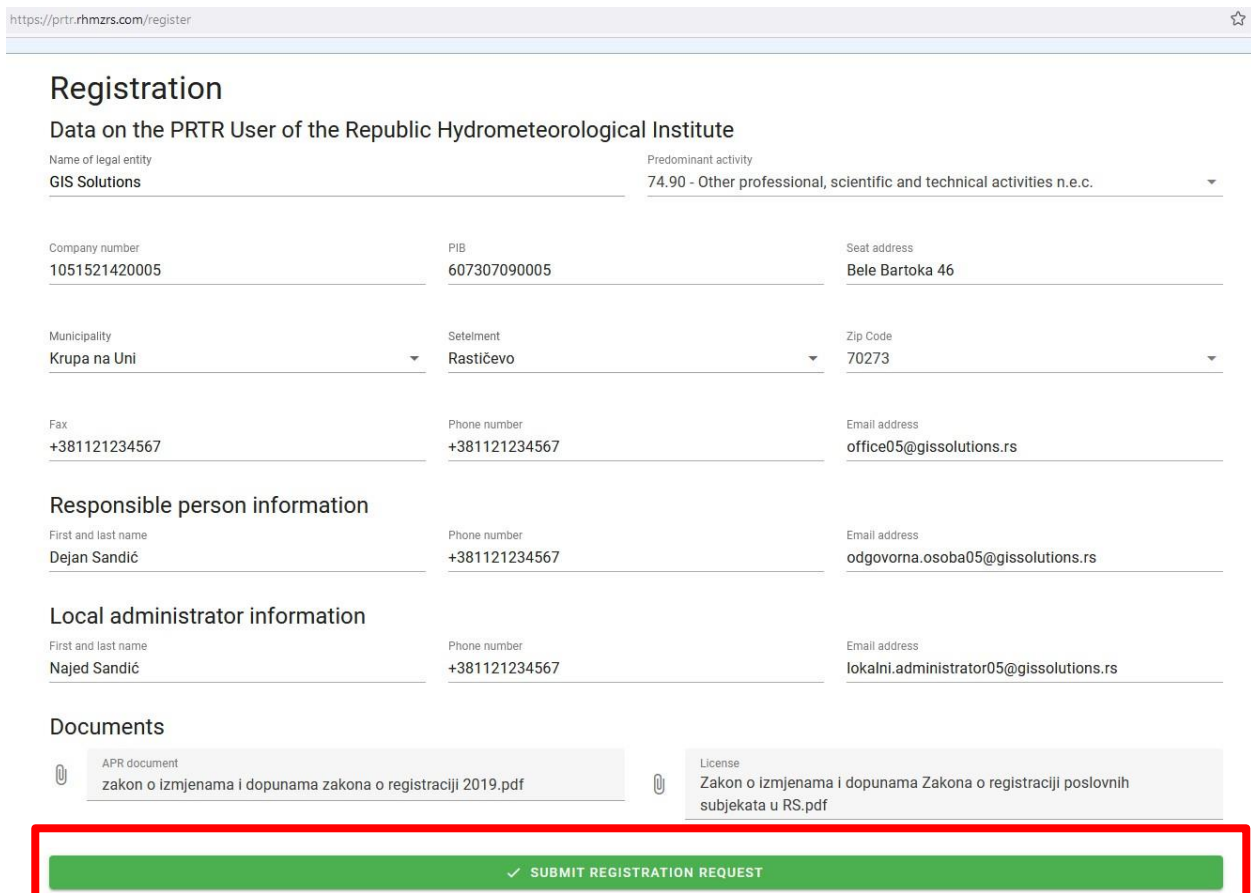


Fig. 7b. Layout of the field for selecting one of the offered values after clicking on the arrow

In certain cases, several fields in which one of the offered values can be selected may be dependent on each other. For example: The fields for municipality, city and postal code are interdependent; by selecting a municipality in the fields for city and postal code, it is possible to select only the city and postal code belonging to the selected municipality.

To submit a registration application, you must click on the green button (Submit registration application) at the bottom of the (Fig. 8.).



https://prtr.rhmzrs.com/register

Registration

Data on the PRTR User of the Republic Hydrometeorological Institute

Name of legal entity GIS Solutions	Predominant activity 74.90 - Other professional, scientific and technical activities n.e.c.
---------------------------------------	--

Company number 1051521420005	PIB 607307090005	Seat address Bele Bartoka 46
---------------------------------	---------------------	---------------------------------

Municipality Krupa na Uni	Settlement Rastičevo	Zip Code 70273
------------------------------	-------------------------	-------------------

Fax +381121234567	Phone number +381121234567	Email address office05@gissolutions.rs
----------------------	-------------------------------	---

Responsible person information

First and last name Dejan Sandić	Phone number +381121234567	Email address odgovorna.osoba05@gissolutions.rs
-------------------------------------	-------------------------------	--

Local administrator information

First and last name Najed Sandić	Phone number +381121234567	Email address lokalni.administrator05@gissolutions.rs
-------------------------------------	-------------------------------	--

Documents

APR document zakon o izmjenama i dopunama zakona o registraciji 2019.pdf	License Zakon o izmjenama i dopunama Zakona o registraciji poslovnih subjekata u RS.pdf
---	--

✓ SUBMIT REGISTRATION REQUEST

You will receive an email from competent institutions with the registration details after successfully submitted request

Fig. 8 Button for submitting an application for registration of an establishment.

If an error occurs after you have clicked on the green button to submit a registration request, a red warning will be displayed in the top right-hand corner of the form (Fig. 9.).

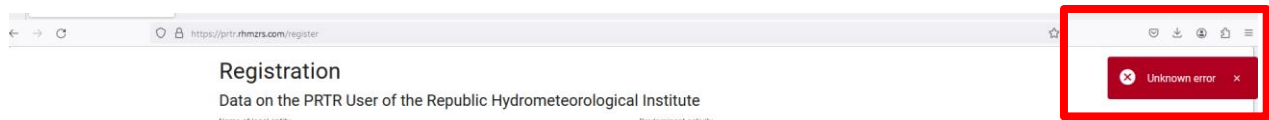


Fig. 9 An error occurred in the process after the registration application was submitted

Such errors occur if more than 15 minutes have elapsed since the last click on the registration form. In such a case, it is necessary to repeat the data entry, i.e. close the Internet browser and repeat the process from the beginning.

Once the request has been successfully submitted, the user returns to the application home screen. A message about the successful registration appears in the top right-hand corner (Fig. 10.).

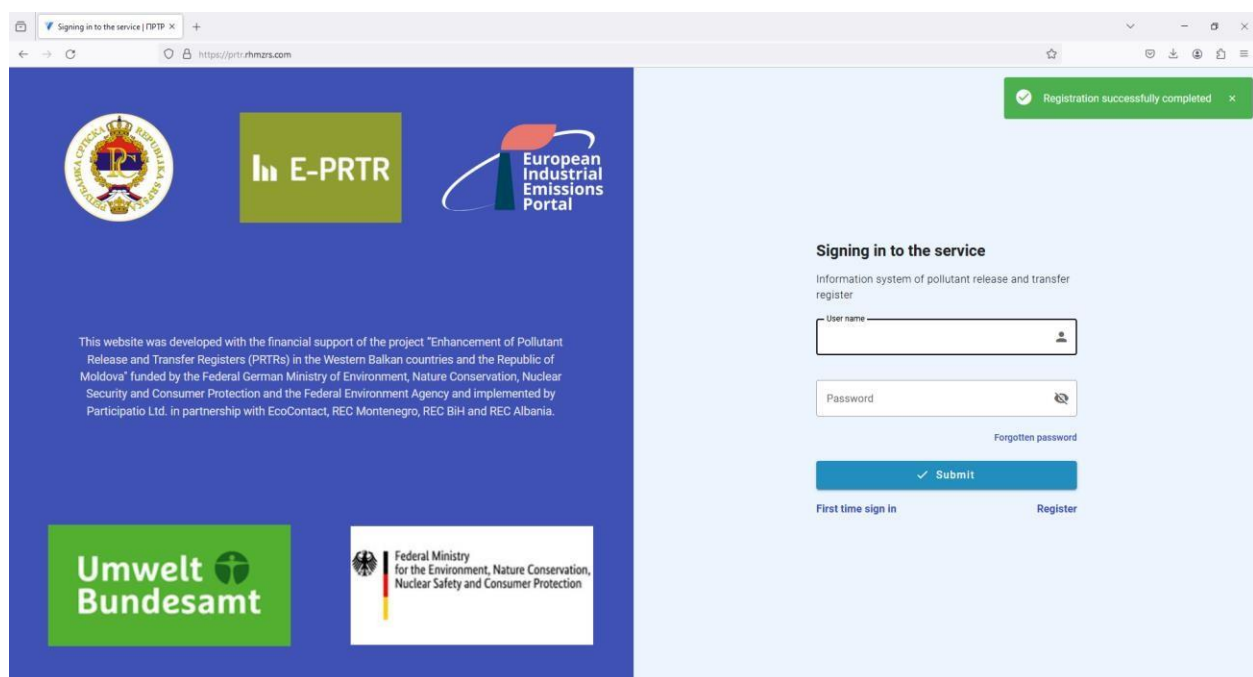


Fig. 10 Successfully filed application for registration of a business entity

After submitting the application to the e-mail address indicated in (field no. 8. Fig. 4.) a message will be sent confirming receipt of the registration application (Fig. 11.).

PRTR обавјештење о регистрацији компаније



Поштовани,

Успјешно сте обавили регистрацију на информациони систем регистра испуштања и преноса загађујућих материја. Ваш захтјев је евидентиран под бројем **17** за компанију **GIS Solutions**. По одобрењу ваше регистрације од стране надлежне институције бићете обавијештени путем емаила.

--

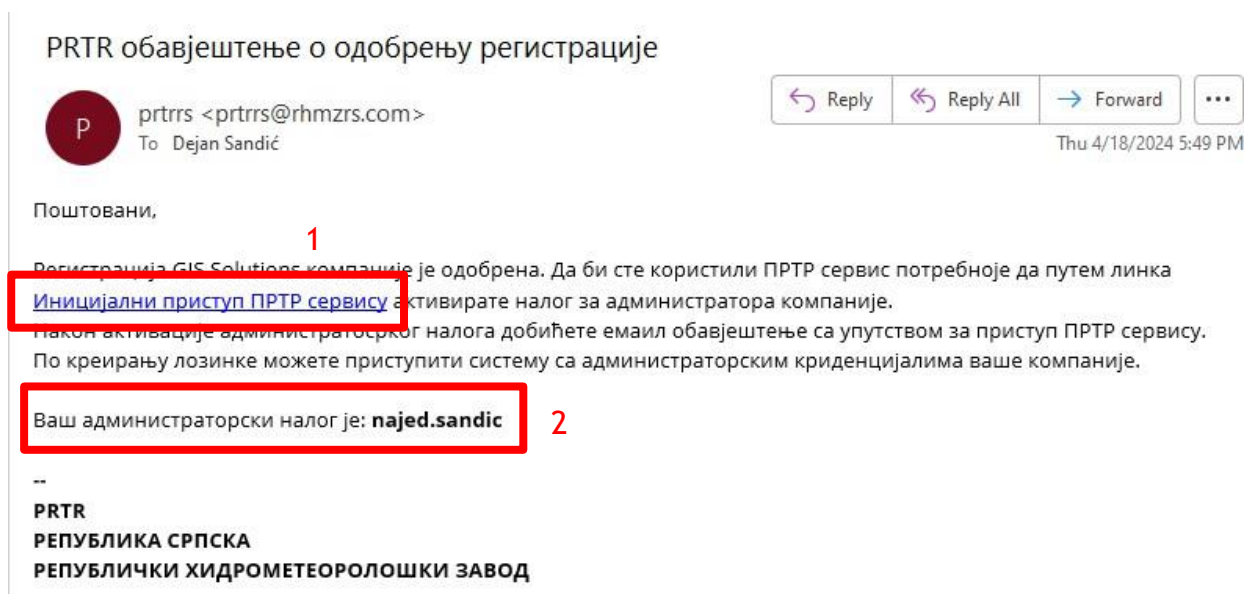
PRTR
РЕПУБЛИКА СРПСКА
РЕПУБЛИЧКИ ХИДРОМЕТЕОРОЛОШКИ ЗАВОД

Fig. 11 Message confirming the submitted registration application.

Approval of the application for registration of a company

A successfully submitted application for registration of a company is forwarded to the competent institution, which approves or rejects it if the authenticity of the company that submitted the application has not been confirmed.

After the competent body has approved the application for registration, a message is sent to the company's e-mail address with a notification of acceptance of the application for registration (Fig. 12.).



Поштовани,

Регистрација GIS Solutions компаније је одобрена. Да би сте користили ПРТР сервис потребно је да путем линка [Иницијални приступ ПРТР сервису](#) активирате налог за администратора компаније. Након активације администраторског налога добићете емаил обавјештење са упутством за приступ ПРТР сервису. По креирању лозинке можете приступити систему са администраторским криденцијалима ваше компаније.

Ваш администраторски налог је: **najed.sandic**

--
PRTR
РЕПУБЛИКА СРПСКА
РЕПУБЛИЧКИ ХИДРОМЕТЕОРОЛОШКИ ЗАВОД

Fig. 12 Message received after confirmed registration

The message contains a link to access the initial registration page (Fig. 12, field no. 1) and the user name assigned to the person who will be responsible for submitting the PRTR data (Fig. 12, field no. 2).

Initial registration of the user account

The initial login has the task of activating the created user account within a reasonable time. If the account is not activated within the specified period, it is archived together with the company's data, so that the company must repeat the

registration process.

By clicking on the link in the registration confirmation (Fig.12, field no. 1.) or by clicking on the link for the initial registration (Fig.3 field no. 5.), a new page opens where the assigned user name is entered.

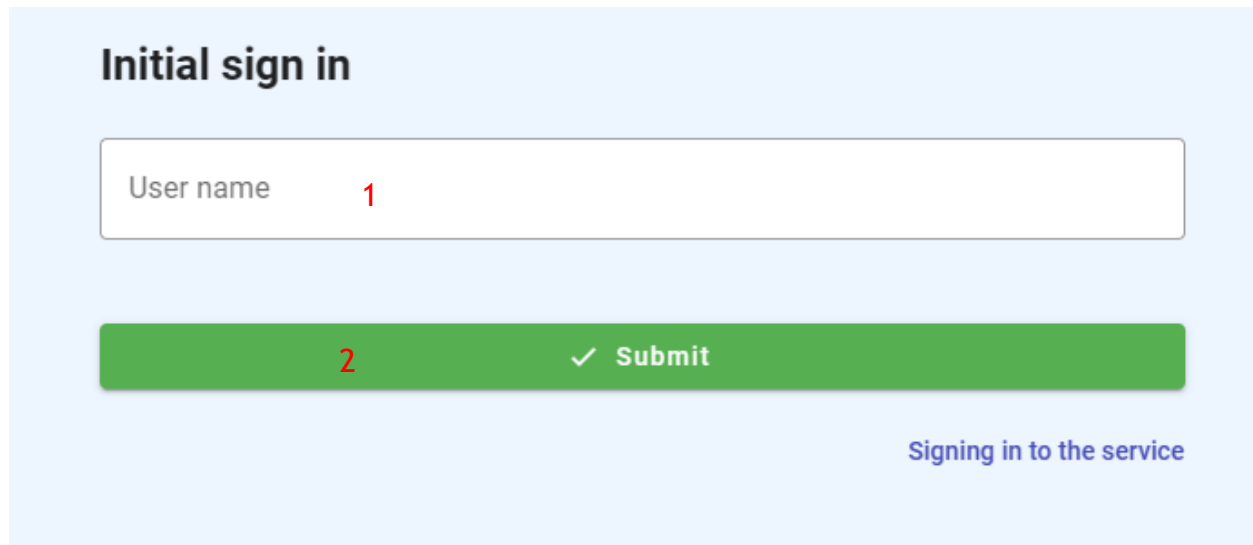
The image shows a web form titled "Initial sign in" in a bold, black font. Below the title is a white rectangular input field with a thin grey border. Inside the field, the text "User name" is followed by a red number "1". Below the input field is a wide, green rectangular button with a thin grey border. Inside the button, a red number "2" is followed by a white checkmark icon and the word "Submit" in white text. To the right of the button, the text "Signing in to the service" is displayed in a blue, italicized font. The entire form is set against a light blue background.

Fig. 13 Form for initial registration

After entering the assigned username (Fig. 12.) in the username field (Fig. 13. Field no. 1) it is necessary to confirm the registration by clicking on the green button (field no. 2. Fig. 13.).

If an incorrect username is entered in the upper part of the page, a warning appears that an error has occurred.

If the username has been entered correctly, after clicking the green button, the start screen of the application appears on the screen with a green message in the upper right corner of the page about the successful registration of the user.

Creating a password

After successful initial registration, the user receives a message with a link to create a user password to the e- mail address registered during user registration.

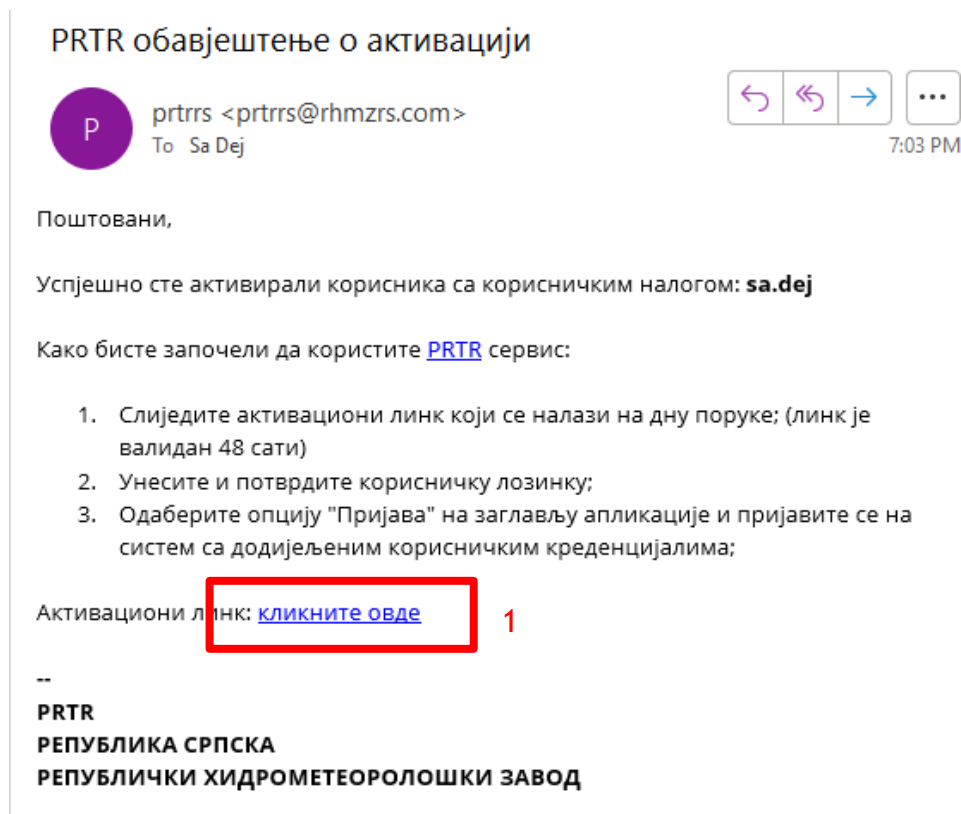


Fig. 14 Message with a link to create a password.

Clicking on the link in field no. 1. Fig. 14 opens a form for creating a user password.

User activation

User name: **sa.dej**

Password 1 

Confirm password 2 

*Password has to contain at least 8 characters
*Password has to contain numbers
*Password has to contain capital letters
*Password has to contain symbols

3  **SUBMIT** 4

Fig. 15 Form for setting the user password

You must enter the desired password in fields no. 1. and 2. in (Fig.15.). The password must consist of at least eight characters, at least one lower case letter, at least one upper case letter, at least one number and one character.

The content of field no. 1. and no. 2. (Fig. 15.) must be identical; in the event of deviations, the fields are marked in red as in (Fig. 5.)

After successfully entering and repeating the password, it is necessary to click on the green button (field no. 4. Fig.15.) to create it.

After successfully creating a password, the user returns to the first screen of the application and a green message about the successful activation of the user appears in the upper right corner of the screen.

Field no. 3. in (Fig.15.) contains rules that must be observed when creating a password.

The password should contain only letters of the English alphabet (it is necessary to use an English keyboard). It is possible to create a password with other alphabets of other languages, but the password created in this way is not usable.

Forgotten password

If the user has forgotten his password, he must click on the link **Forgot password** on the start screen of the application, (field no. 3. Fig. 3.) and will be redirected to the form in which he must enter his user name.

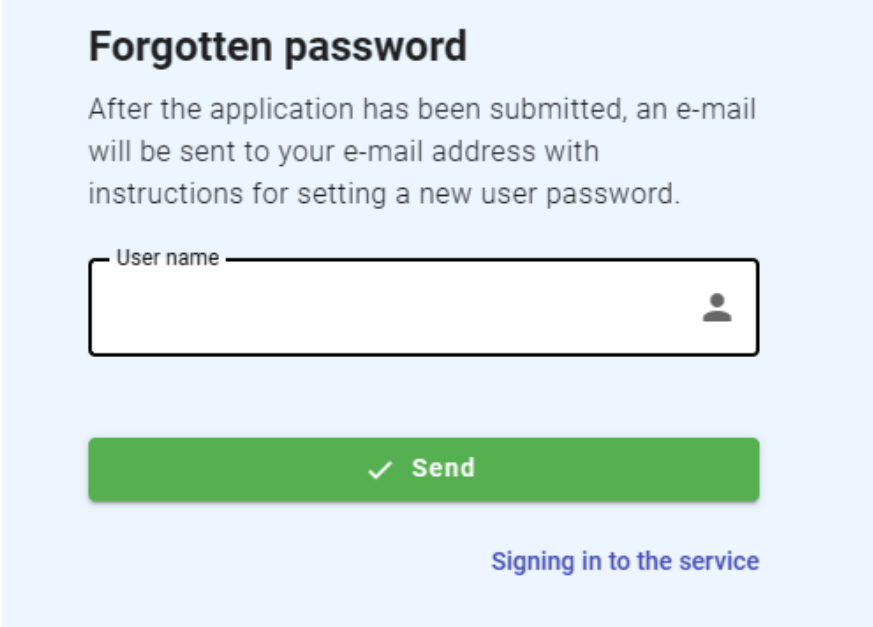


Fig. 16: Form for requesting a password change

After entering the user name and clicking on the green button, the request to change the password is forwarded to the system. The user returns to the home screen of the application, where a message appears in the upper right corner stating that the password has been reset and that an electronic message with instructions for changing the password has been sent.

PRTR промјена корисничке лозинке

 prtrs <prtrs@rhmrzrs.com>
To Sa Dej

Поштовани,

Пратите линк како бисте у сервису [PRTR](#) поново поставили корисничку лозинку : [кликните овде](#)

--

PRTR
РЕПУБЛИКА СРПСКА
РЕПУБЛИЧКИ ХИДРОМЕТЕОРОЛОШКИ ЗАВОД

Fig. 17 The message you receive when you submit a request to change a forgotten password

If you click on the link in (field no. 1. Fig. 17.), you will see the same screen as when creating a password in (Fig. 15.) The procedure and rules that applied to creating a password also apply to changing the password.

If the user wants to change the password, they can initiate the "Forgot password" procedure and create a new password themselves.

First login

After the user password has been successfully created, the application user creation process is complete.

The login form is titled "Signing in to the service" and is for the "Information system of pollutant release and transfer register". It contains two input fields: "User name" with the value "dejan.samdic" (labeled 1) and "Password" with masked characters "....." (labeled 2). There is a "Forgotten password" link below the password field. A blue "Submit" button with a checkmark is at the bottom. Below the button are links for "First time sign in" and "Register".

Fig. 16 User login form

In order to access the application, it is necessary to enter the user name in (field no. 1 Fig. 16.) and the password (field no. 2. Fig. 16.). If the user name or password is incorrect, a message will appear in the top right-hand corner of the screen indicating that an error has occurred

The start screen shows a sidebar menu on the left with "Home", "Facilities", "Reporting", and "Administration" (labeled 1). The main area says "Welcome, Sa Dej" (labeled 2). The top right corner shows a user profile "sa.dej" with a dropdown arrow (labeled 3) and a "Documentation" link.

Fig. 17. Start screen of the application after successful login

The three main parts of the screen are

15. Menu with application commands
16. The central part of the screen intended for displaying notifications to the user after login and the part for displaying data entry and verification fields.
17. User settings

Menu commands

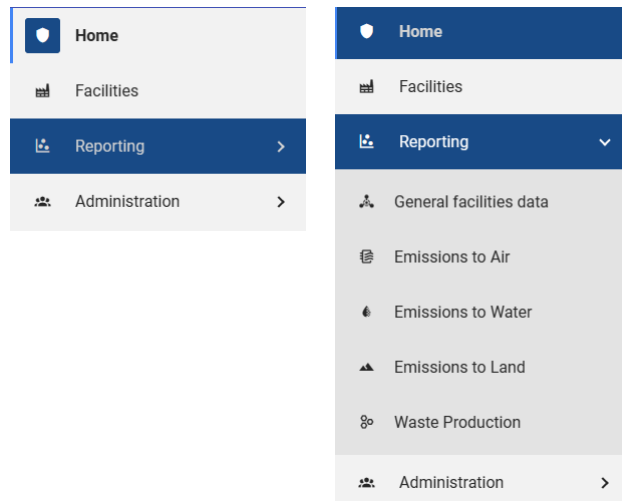


Fig. 18. Display of functions in the menu

A command menu allows the user to select functions for entering or displaying data. Clicking on an item in the menu displays submenu options (Fig. 18.).

Clicking on one of the submenu options changes the appearance of the middle part of the screen (Fig. 17.field no. 2.), depending on the purpose of the selected submenu option.

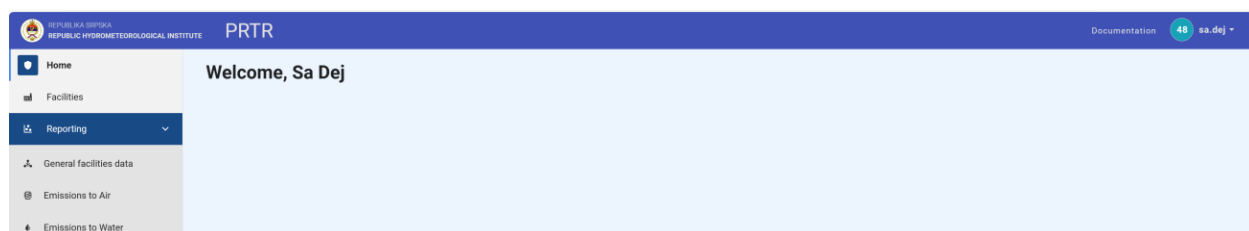


Fig. 19. Appearance of the middle part of the screen before clicking on one of the submenu items

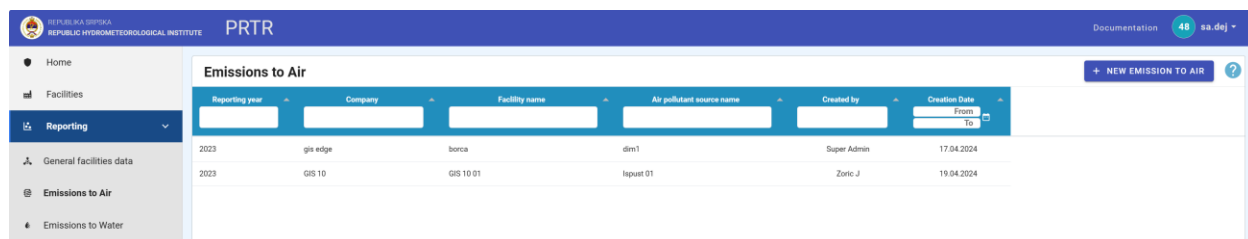


Fig. 20. The appearance of the middle part of the screen after clicking on one of the submenu items

User settings

In the user settings area there are functions for:

1. Quit working with the application / Exit the application

2. Language selection, depending on how many official languages are used in the user's country, it can be one or more languages
3. Choice of screen layout, dark or light theme

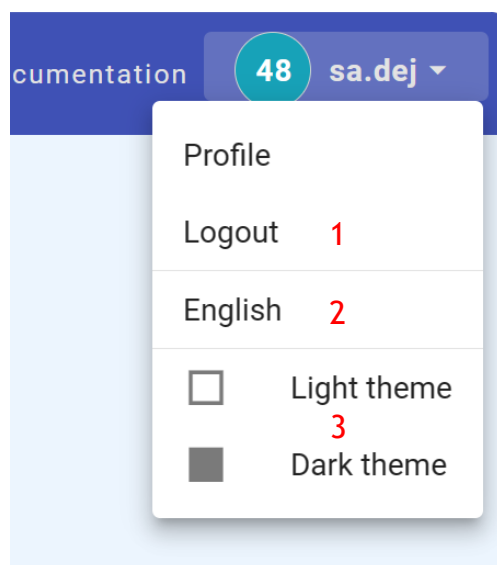


Fig. 21. Options in the user settings menu

Selecting field no. 2. (Fig. 21.) ends the work with the application and takes the user back to the start screen of the application Fig. 2.

Data entry

The process of entering data in connection with the PRTR takes place in several steps:

1. General data about the operating facilities are entered
2. Data on the sources of emissions to water
3. Data on the sources of emissions to air
4. Data on the sources of emissions to soil

The PRTR Protocol takes care of the PRTR activity of the facility at a specific site, which is why the competent authority must approve the construction of each new facility.

From the PRTR Protocol point of view, it is the same PRTR facility if an facility has changed ownership but not its PRTR activities. In such cases, the competent institution must approve each establishment of a new facility.

Only after a new facility has been approved the user can access the creation of emission sources for this facility. Depending on the size of the business entity and the number of facilities, the administrator of the business entity can create one or more users of the application and assign to each individual the facility for which they are to enter data. A user can enter data for one or more facility and can only view data for the facility's assigned to him.

Order of creation of facilities, sources and users of the application is not important, how ever it is recommended to create the users of the application first and then proceed with the creation of facilities and sources.

Creation of a user

The user that was created when the business entity was registered becomes the administrator of the business entity for the PRTR application. The business entity administrator can create one or more users for the application. The administrator

of the business entity can assign administrative rights to the newly created user, otherwise the newly created user only has data entry rights.

The user is created by clicking on the (Fig 22. Field no. 1.) Administration menu. clicks on the User submenu (Fig. 22. Field no. 2.).

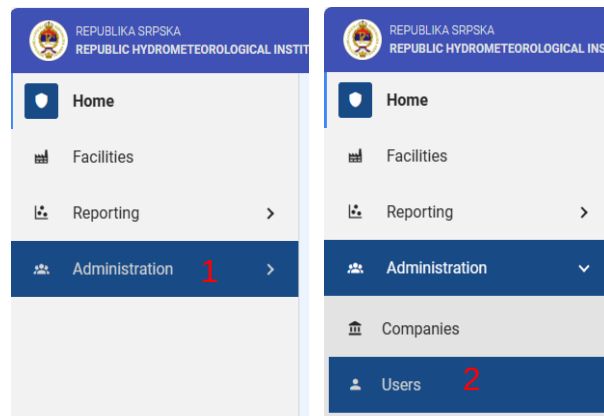


Fig. 22. Displaying the steps for adding a user

After you have selected the function to add a user, a list of the created user accounts linked to the business entity is displayed on the screen.

How many user accounts are created depends on the requirements of the business entity. The person entering the data for the system must be familiar with the technology and operation of the system in order to create right number of users.

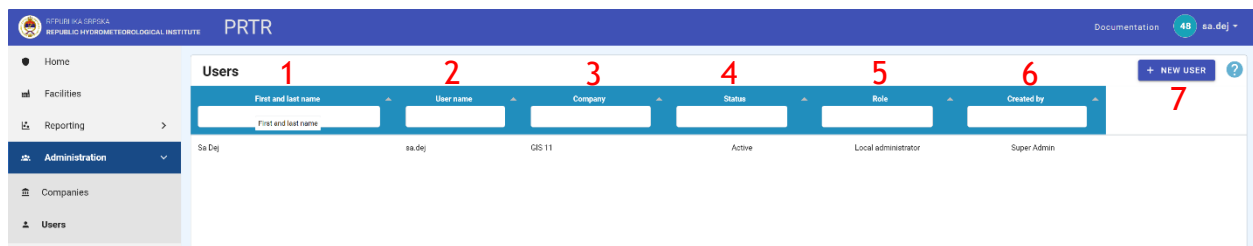


Fig. 23. Overview of the user accounts created

On the form with the list of beneficiaries (Fig.23) there are fields from number 1 to number 6. These fields can be used to query the users according to the following criteria:

1. First and last name of the user (it is sufficient to enter part of the user name in the field to display all users with this name)
2. User account
3. The name of the business entity
4. The status of the user, whether they are active or inactive
5. User privileges: whether they are an administrator or a normal user
6. The name of the person who created it

To add a new user, you must click on the button to add a user (Fig. 23, Field no. 7). After clicking on this button, a new form for adding users opens (Fig. 24.).

Fig. 24. Form for adding a new application user

The administrator of the business entity enters the following information about the user:

1. User rights are assigned by selecting the offered values from the list box (field no. 1 Fig. 24.). The administrator can grant the new user administrative rights or only allow him to enter data
2. The administrator can choose whether or not to send the user an email with a notification about the creation of an account and a link to create a password. (Fig.24.)
3. The employee's first and last name is entered in (field no. 3. Fig. 24.)
4. Fields no. 4,5,6 in (Fig. 24.) represent the user's contact information
5. To create a user, you must click on the green button (field no. 7. Fig. 24.)

Creating facility

The first step in data entry is the creation of assets, which are an integral part of a business entity.

Facility could be only be created in the database by the person who is company administrator. It is assumed that the company administrator is familiar with the organization of the company and that he/she creates all facilities to be reported to the PRTR.

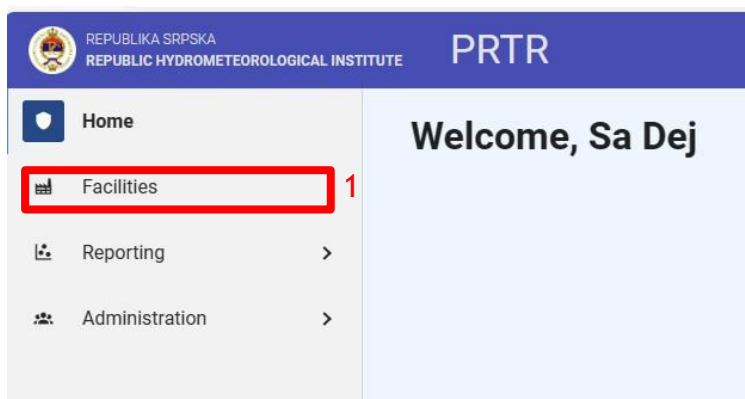


Fig. 25. Selecting the function for adding a new attachment

To add a new facility in database, you must click on the **Facilities** menu item on the main page, Fig. 25 Field no. 1.

Fig. 26 Form for facilities overview

After clicking on the **Facilities** menu, a form appears on the screen with all previously created facilities (Fig. 26.).

In field no. 1 (Fig. 26.) there is a filter for creating queries about created facilities. Field no. 2. (Fig. 26.), contains a list of the created facilities. If field no. 2 (Fig. 26.) is empty, no facility has yet been created for the business entity. Facility can only be created by the company administrator of this business entity. The company administrator can only see the facilities that belong to the business entity of which he is the administrator.

The employees of the responsible institution can only see all the created facility and assigned to them, but cannot add new facilities.

By clicking on the blue button in the top right-hand corner of the form (field no. 3. Fig. 26.) will open the form for adding a new facility.

Fig.

27. Addition of a new facility

In the header of the form (field no. 1. Fig. 27.) the name of the business entity for which the user of the application is defined as administrator is displayed.

Due to the large amount of data entered for the facility, the data is divided into groups:

1. **Basic data** group (field no. 2. Fig. 27.)
2. **Additional data** group (field no. 3. Fig. 27.)
3. **Authorization** group (field no. 4. Fig. 27.)

To save the entry of the new facility, click on the green button in the bottom right-hand corner of the form after entering all the data (field no. 5. Fig. 27.).

The selected data group can be opened and closed by clicking on the bar with the group name.

Section: Basic data

In the Basic data group, enter the basic data of the institution you are identifying.

New facility

Company **GIS 11**

Basic information

Facility name **1**

Municipality **2** Settlement **3** Zip Code **4**

Address **5** Phone number **6**

Fax **7** Email address **8**

Additional information

Authorization information

CANCEL SUBMIT

Fig. 28. Adding a facility - Basic data group

1. Name of the facility
2. The municipality on whose territory the facility is located (select from the list of municipalities provided)
3. The settlement on whose territory the facility is located (select from the list of settlements provided)
4. Zip code of the settlement (select from the list of zip codes provided)
5. Address of the facility - street and house number
6. Telephone number of the facility
7. Number of the facility
8. Electronic mail of the facility

As with the application for registration, there is a reciprocal relationship between the choice of municipality, settlement and zip code. After selecting the municipality, it is possible to select only the settlements located on the territory of the municipality and only the postal code that exists in this municipality.

Section: Additional data

In the group of additional data, information on the exact location of the FACILITY, the main and secondary activities of the PRTR and additional descriptions of the facility functions are entered.

The location of the facility is given in geographical coordinates, field no. 1&2 (Fig. 29.). The geographical latitude and longitude must be given in decimal form with 6 decimal places (e.g. Long: 17.73493 Lat: 43.273902). The coordinate system in which the position of the system is read is WGS84. The GOOGLE EARTH DESKTOP program can be used to determine the coordinates of the facility (the method of using this program is described in a separate appendix).

When entering the facility, the application checks whether the specified coordinates of the facility are within the territory of the municipality in which the facility is located. If the details are incorrect, the facility cannot be included in the database.

New facility

Company: GIS 11

Basic information

Additional information

Geo location

Latitude 1

Longitude 2

Is facility:

5 ☐ LCP

6 ☐ Water Supply System

7 ☐ Sewage System

Main PRTR activity 3

PRTR activities 4

Authorization information

CANCEL SUBMIT

Fig. 29 Adding a facility - a section of additional data

The main PRTR activity of the facility is determined by selecting it from the list (field no. 3. Fig. 29.). A facility may only have one main PRTR activity.

Additional PRTR activities are added from the drop-down list (field no. 4 Fig.29.). It is possible to add more than one additional PRTR activity here.

Fields no. 5. & 6. & 7. (Fig. 29.) are checked in the following cases:

- Field no. 5: If the facility has at least one boiler with a capacity of 50 MW or more
- Field no. 6: If the system produces drinking water
- Field no. 7: If the facility treats waste water

If fields no. 6. and no. 7. must be filled in for this installation when the installation is set up.

Section: Authorization

The authorization group defines the person responsible in the institution and the persons who will enter data in relation to this institution.

New facility

Company: GIS 11

Basic information

Additional information

Authorization information

Responsible person 1

Sa Dej

Authorized persons 2

Neko nepoznat, 111 1111, Sa Dej

CANCEL SUBMIT

Fig. 30 Adding a data for authorized persons in facility

Only one person (field no. 1. Fig. 30.) whose user account belongs to the business entity for which the new facility is created can be selected. More than one person (field no. 2. Fig.30.), can be selected who can enter data for this facility. It is possible that company administrator is also the person who enters the data via the system.

Adding a source of pollution

After adding a facility, all created facility with the basic data are displayed below the line with the filter fields, (Fig 31.).

Facility name	Status	Main PRTR activity	Create...	Creation Date	Activated by	Activation Date
f11	Inactive 1	1.(a)	Sa Dej	22.04.2024		

Fig.

31. List of created facilities

On entry, the facility has the status INACTIVE (field no. 1 Fig. 31.). The facility receives the status ACTIVE after approval by the responsible institution, after which it is possible to add emission sources.

Facility name	Status	Main PRTR activity	Create...	Creation Date	Activated by	Activation Date
Postrojenje 1B	Inactive	0	Simo Matavulj	16.04.2024		
borca	Active 1	1.(a)	Dejan Samdic	17.04.2024	Nada Rudan	17.04.2024
GIS 10 01	Inactive	1.(c)	Zoric J	19.04.2024		
f11	Inactive	1.(a)	Sa Dej	22.04.2024		

Fig. 32 Structure of the form with the authorized attachment

To start the process of adding emission sources in an authorized facility, it is necessary to click on the facility for which we want to add data on emission sources.

Fig. 33 Form in which the data on the emission sources are entered

The opened form shows the basic information about the facility: name of the facility, address, responsible person, PRTR activities (the main PRTR activity is marked in red and the secondary activities in purple).

At the top of the form, in fields no. 1,2,3,4 (Fig. 33.), there is a menu where we can select which sources we want to add.

For the facility it is possible to add:

1. General data - by clicking on this field we return to the general data of the facility
2. Sources of air emissions - a form for displaying and adding sources of air emissions will open
3. Sources of emissions to water - opens the overview and adding sources of emissions to water
4. Sources of emissions to soil - a form for adding sources of emissions to soil opens

There is no option to enter waste in the form, because unlike emission sources, which are constant over time, the type of waste can fluctuate in certain periods.

Sources of air emissions

By selecting field no. 2. (Fig. 33.), the form as shown (Fig. 34.) is displayed.

The screenshot shows the 'Facility: borca' page with the 'AIR POLLUTANT SOURCE' tab selected. A table lists registered sources. Field 1 points to the first row, and field 2 points to the '+ AIR POLLUTANT SOURCE' button.

Air pollutant source name	Source type	Status	Created by	Creation Date
dim1	Industrial	Active	Dejan Samdic	17.04.2024

Fig. 34. Form for the overview of registered air emission sources

To add a new emission source, it is necessary to click on the ADD SOURCE OF EMISSION button (field no. 2 Fig. 34.). After clicking this button, the form shown in (Fig. 35.) appears.

The screenshot shows the 'New air pollutant Source' form. Fields are numbered 1 through 11. Field 10 is the 'SUBMIT' button.

Facility: f11 (INACTIVE)

Facility Details | AIR POLLUTANT SOURCE | WATER POLLUTANT SOURCE | LAND POLLUTANT SOURCE

New air pollutant Source

Air pollutant source name (1) Source type (2)

Altitude (3) Installed Thermal Power at Entrance (MW) (4) Source Height (m) (5) Inner Diamet Of Source Top (m) (6)

Geo location

Latitude (7) Longitude (8) User remarks (9)

SUBMIT (10)

Fig. 35. Form for the entry of emission sources into the air

On the form received, the data on the source in the air are entered

1. Name of the source
2. Source type (select the value offered from the list)
3. Height in meters
4. Thermal power of the source
5. Height of the source
6. Diameter of the source at the tip
7. The longitude is entered as a decimal number
8. The latitude is entered as a decimal number
9. Remarks field - is used to enter additional remarks that would clarify any ambiguities for the employees of the responsible institution

For fields no. 7 & 8 (Fig.35.) the same rules apply as for entering coordinates that define the location of the system in space.

To add a new emission source, you must click on the green button in the bottom left corner of the form (field no. 10).

Fig.35.) after completing the data entry.

If the user wishes to exit the form for entering the data of a new emission source into the air, it is sufficient to click on the X button (field no. 11. Fig.35.) in the upper right corner of the form.

To view the data on a source, click on the row in the table where the desired source is located (Fig. 34. field no. 1.) where upon a form with the entered data on the source opens (Fig.36.)

Facility: f11 INACTIVE

FACILITY DETAILS AIR POLLUTANT SOURCE WATER POLLUTANT SOURCE LAND POLLUTANT SOURCE

Air pollutant Source details

Water pollutant source name: **ispust 1**

Status: **ACTIVE**

Created date: **23.04.2024**
Created by: Sa Dej

Activated date: **23.04.2024**
Activated by: Sa Dej

Source type: Industrial

Altitude: 123

Installed Thermal Power at Entrance (MW): 2

Source Height (m): 22

Inner Diameter Of Source Top (m): 1

Geo location

Latitude: 43.444

Longitude: 33.567

User remarks: ovo je ispust koji povremeno radi

1 EDIT

2 DEACTIVATE

Fig. 36. Display of data on the source of air emissions

Figure 36. shows a form for displaying data on the source of air emissions. If the source information needs to be corrected, click on the blue button in the lower left corner of the form (field no. 1. Fig.36.)

If the source is to be deactivated, click on the orange button in the bottom right-hand corner of the form (field no. 2. Fig. 36.).

The deactivation of a source must be approved by the competent authority. As long as the competent authority has not approved the removal/deactivation of the source, it is not visible.

Sources of water emissions

By selecting field no. 3. (Fig. 33.) the form as shown in (Fig. 37.) is displayed, which allows you to check the defined water sources and add new ones.

Facility: f11 INACTIVE

FACILITY DETAILS AIR POLLUTANT SOURCE WATER POLLUTANT SOURCE LAND POLLUTANT SOURCE

+ WATER POLLUTANT SOURCE

Water pollutant Source	Status	Created by	Creation Date
iv1	ACTIVE	Sa Dej	23.04.2024

1

2

Fig. 37. form for the verification and addition of emission sources for water

To add a new emission source, click on the WATER POLLUTANT SOURCE button (field no. 2 Fig.37). After clicking this button, the form shown in (Fig. 38.) appears.

Facility: f11 INACTIVE ?

FACILITY DETAILS AIR POLLUTANT SOURCE WATER POLLUTANT SOURCE LAND POLLUTANT SOURCE

New water pollutant Source ×

Water pollutant source name 1 12

Projected capacity of sewer (l/s) 2

Recipient type 3 Recipient name 4 Basin 5

Type of discharged Wastewater

☐ Sanitary

☐ Technologically 6

☐ Cooling

☐ Atmospheric

Geo location

Latitude 7

Longitude 8

User remarks 9

Is there a treatment plant for waste water? 10

11

✓ SUBMIT

Fig. 38. Form for the indication of the sources of water emissions

The information on the source of the water is entered on the form received

1. Name of the source
2. Estimated source capacity in liters per hour
3. Type of recipient (canal, river, lake...) - select the value from the list
4. Name of the recipient
5. Name of the catchment area where the discharge is located (the value is selected from the list)
6. Type of wastewater discharged from the outfall (one or more values can be selected)
7. The longitude is entered as a decimal number
8. The latitude is entered as a decimal number
9. Remarks field - is used to enter additional remarks that would clarify any ambiguities for the employees of the responsible institution

The same rules apply to fields no. 7 & 8(Fig. 38.) as when entering the coordinates defining the position of the facility in space.

To add a new emission source, click on the green button in the lower left corner of the form (field no. 11 Fig. 38.) after completing the data entry.

If the user wishes to exit the form for entering data for a new water emission source, simply click on the X button (field no. 12. Fig. 38.) in the upper right corner of the form.

If the source's wastewater is treated before the wastewater is discharged, the option in field no. 10 Fig. 38. must be selected.

Fig. 39 Selection of wastewater treatment methods prior to discharge from an emission source

After clicking the button in field no. 10. (Fig.39 or Fig.38.) four groups for wastewater treatment prior to discharge appear:

13. Mechanical treatment of wastewater
14. Chemical treatment
15. Biological treatment
16. Devices for heat exchange

You can select several options in each of these groups.

To view the data of a source, click on the row in the table where the desired source is located (Fig. 37. field no. 1.) whereupon a form opens with the entered data about the source (Fig. 37).

Click again on the Wastewater treatment button (field no. 10. Fig. 39. or Fig.38) removes the elements describing how the wastewater is treated before discharge.

Sources of emissions into the soil

By selecting the field no. 4. (Fig. 33.) the form as shown (Fig. 40), which allows the overview of the defined emissions to soil.

Fig. 40. Form for displaying emission sources in soil

To add a new emission source, it is necessary to click on the ADD EMISSION SOURCE button (field no. 1, Fig. 40.). After clicking on this button, the form shown in (Fig. 41.) appears.

Fig. 41. Form for checking and supplementing emission sources in the soil

Enter the data on the emission source in the soil on the form received:

1. Source name
2. Longitude is entered as a decimal number
3. latitude is entered as a decimal number
4. Remarks field - is used to enter additional remarks to clarify any ambiguities for the staff of the competent institution

The same rules apply to fields no. 3 and 4 as for entering coordinates that define the location of the facility in space.

To add a new emission source, click on the green button in the bottom left-hand corner of the form, field no. 5, after completing the data entry (Fig. 41.).

If the user wishes to exit the form for entering data on a new emission source in the floor, it is sufficient to click on the X button (field no. 6. Fig. 41.) in the upper right corner of the form.

Reporting

After entering the basic data on the facility, the emission sources, the energy sources and the raw materials used in the facility as well as the products of the facility, the input of the reporting data is called up.

The data entered as part of the annual reporting is data that can change from year to year.

Select field no. 1 in the application menu (Fig.42.). After clicking on the report field, a submenu with report functions opens (Fig.43.).

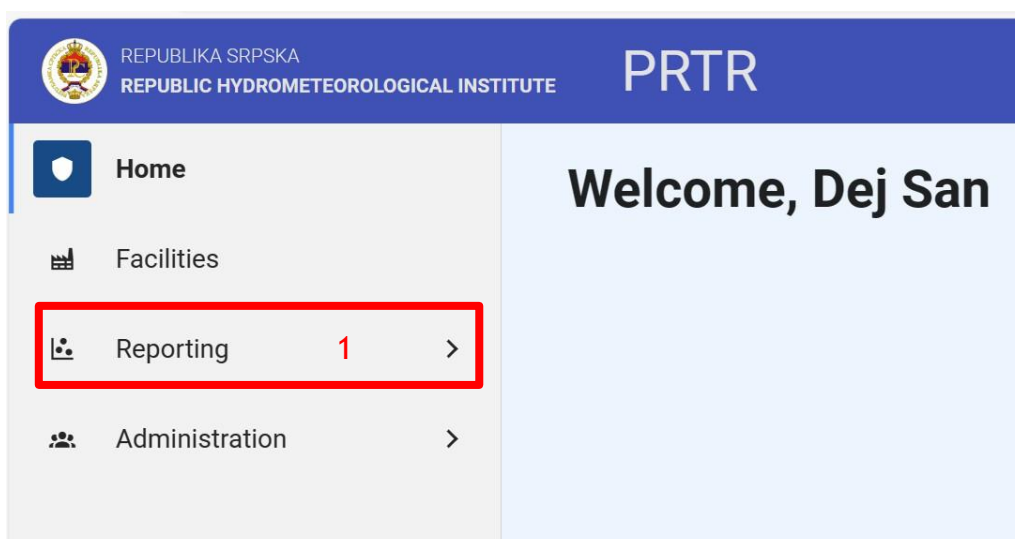


Fig. 42. Application menu in which the report functions are selected

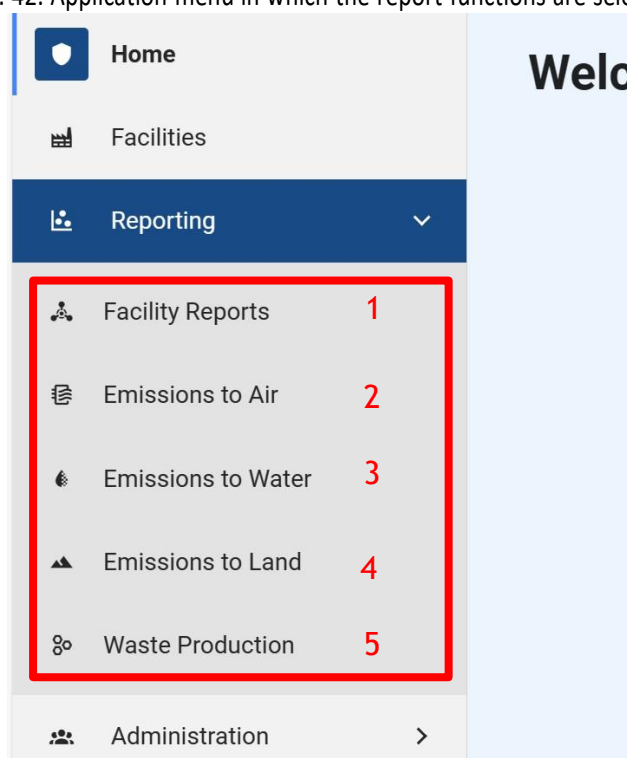


Fig. 43. Submenu with reporting functions

In the submenu for reporting you can select:

1. General information
2. Air emissions
3. Emissions to the pipeline
4. Emissions to soil
5. Generation of waste

Entering general data about the facility

The function for entering general data on the facility allows you to enter data on the raw materials, products and energy used in the facility and on the facility's work regime of operation in the reporting year. To access the form for entering this data, it is necessary to click on field no. 1. (Fig.42.).

The screenshot shows the 'Facility Reports' interface. At the top, there's a header with the title 'Facility Reports' and a button '+ NEW FACILITY REPORT'. Below the header is a filter section with fields for 'Reporting year', 'Company', 'Facility name', 'Created by', and 'Creation Date'. A table below the filters displays a list of facilities with columns for 'Reporting year', 'Company', 'Facility name', 'Created by', and 'Creation Date'. Red boxes and numbers 1, 2, and 3 highlight specific areas: 1 points to the filter section, 2 points to the facility list, and 3 points to the 'NEW FACILITY REPORT' button.

Fig. 43: Initial form for viewing and entering general data about the facility.

Field no. 1 (Fig. 43.) is used to query the facilities that are visible in the facility list, field no. 2. (Fig. 43.). Entering data in any field in the data filtering area automatically restricts the list of facilities listed in field no. 2. It is possible for filtering to be done by entering values in several fields of the query section to reduce the number of facilities displayed in field no. 2.

To add general data for a facility, click on the button in the upper right corner of the form, position no. 3. (Fig.43.).

Adding facility to the annual report

After clicking the button (field no. 3 Fig. 43.) to add general data about a facility, you will get a form as shown in (Fig. 44.).

The screenshot shows the 'Create Facility Report' form. It has a title 'Create Facility Report' and a close button. The form contains several input fields: 'Reporting year' (2023), 'Facility name' (dropdown), 'Working regime' (dropdown), 'Number of shifts per day' (dropdown), 'Number of working days - weekly', 'Number of working days - yearly', 'Number of working days - seasonal', 'Number of operation hours', 'Employees (permanent)', 'Employees (part time)', 'Number of employees in shift 1', 'Number of employees in shift 2', and 'Number of employees in shift 3'. A 'SUBMIT' button is at the bottom right. Red boxes and numbers 1 through 14 highlight specific fields: 1 points to the 'Facility name' dropdown, 2 points to the 'Working regime' dropdown, 3 points to the 'Number of shifts per day' dropdown, 4 points to the 'Number of working days - weekly' field, 5 points to the 'Number of working days - yearly' field, 6 points to the 'Number of working days - seasonal' field, 7 points to the 'Number of operation hours' field, 8 points to the 'Employees (permanent)' field, 9 points to the 'Employees (part time)' field, 10 points to the 'Number of employees in shift 1' field, 11 points to the 'Number of employees in shift 2' field, 12 points to the 'Number of employees in shift 3' field, 13 points to the 'SUBMIT' button, and 14 points to the close button.

Fig. 44. Adding general data about the facility in a new reporting cycle

On the form received, enter the first set of general data about the facility related to the facility's mode of operation and employment of persons by entering data in the following fields:

1. Type of operation of the selected facility:
2. Number of shifts in the selected facility
3. Number of working days of the facility in the working week
4. Number of working days of the facility during the year
5. Number of working days of the facility during the season
6. Number of working hours of the facility during the year
7. Number of permanent employees at the facility
8. Number of occasional employees at the facility
9. Number of employees in the first shift
10. Number of workers in the second shift
11. Number of workers in the third shift
12. Field for entering the data entered

13. Field for interrupting data entry
14. Data on the reporting year

Field no. 2. (Fig. 43.) shows facilities for which data are already entered. If you try to re-enter the data for the same facility, you will receive an error message in the top right-hand corner of the form.

If any of the requested data is mandatory and has not been entered, an error message will be displayed. If the data has been entered correctly, the form is returned as shown in (Fig. 43.) the number of lines is increased by the added facility (Fig. 45.).

Facility Reports

Reporting year	Company	Facility name	Created by	Creation Date
				From To
2023	GIS Solutions	GIS BB 01	Dej San	06.05.2024
2023	GIS Solutions	GIS BB 02	Dej San	06.05.2024

Fig.45. After successfully adding the facility (in relation to Fig. 43. There is another line)

To continue entering general data about facility, it is necessary to click on the line where this facility is located (Fig. 43. field no. 2.).

Facility Report Information

2023 GIS BB 02

WORKING REGIME

FUELS

PRODUCTS

RAW MATERIAL

REMARKS

STATUS

Reporting year

2023

Company name

GIS Solutions

Facility name

GIS BB 02

Working regime

Season start (month)

Season end (month)

Number of shifts per day

Number of working days - weekly

Number of working days - yearly

Number of working days - seasonal

Number of operation hours

Employees (permanent)

Employees (part time)

Number of employees in shift 1

Number of employees in shift 2

Number of employees in shift 3

EDIT

Fig. 46. Form for entering data about facility work regime

Facility Report Information

2023 GIS BB 02

WORKING REGIME

FUELS

PRODUCTS

RAW MATERIAL

REMARKS

STATUS

1

2

3

4

5

1

Reporting year

2023

Company name

GIS Solutions

Dig. 46a. Data sets that form the general plant data

Fig. 46b. Level of mandatory data entered

Fig. 46. shows the form on which general data about the system is entered or corrected; the data record to be entered is selected via the form menu Fig. 46a.

In the form menu, Fig. 46b., fields 1-5, you can select which data record is to be entered:

1. Operating mode
2. Energy
3. Products

4. Raw materials
5. Remark

Field no. 1 (Fig.46.b) is indicator for the degree of data entry. If the field is orange, not all mandatory data for the system has been entered.

Adding Fuels

By clicking on the ENERGY menu (field no. 2 Fig. 46a.) a form is displayed for observing fuels used in reporting year (Fig. 47.).

Fig. 47 Form for monitoring the energy resources used in the facility

Field no. 5. (Fig. 47.) contains a list of energy sources used by facility. To add a new energy commodity, click on the button in the upper left corner of the form (field no. 1. Fig. 47.) clicking on the button will display the form as in (Fig. 48.).

Fig. 48. Form for entering data on the energy commodity used in the facility

The following information is intended to describe the energy consumed in the facility:

1. Name of the energy source used
2. Daily energy consumption
3. Method of energy storage
4. Capacity of the storage facility in which the energy is stored
5. Average amount of energy in storage

Mandatory fields for input are the name of the energy source and the daily consumption of the energy source, if all data is entered correctly, after clicking the data entry button (field no. 6 Fig. 48.) the application will return to the form (Fig. 47.) but the number of lines in field no. 5. (Fig. 47.) will be increased by one line.

If you try to enter an energy commodity that is already entered in the upper right corner of the form, an error message appears.

If you want to cancel adding energy, you must click on the X sign (field no. 7. Fig.48.). To correct the data of the entered energy, click on the pencil icon (Fig. 47. field no. 3.) the form will then appear as in (Fig. 48.) but with all the fields filled in and their values can be changed.

To delete the previously entered energy, we must click on the trash can icon (field no. 4. Fig. 47.). After clicking on the basket icon, a new form opens, in which we are asked to confirm the deletion of the entered energy source (Fig. 49.)

The screenshot shows the 'Facility Report Information' interface for the year 2023. The 'FUELS' tab is active. A table lists fuel types: Coal tar, Biodiesels, and Bitumen. A modal dialog titled 'Remove fuel used in Facility' is open, asking for confirmation to remove 'Bitumen'. The dialog has 'Cancel' and 'Submit' buttons.

Fuel Name	Consumption per day ↑	Way of storing	Maximum stock capacity	Average amount on stock
Coal tar	22			
Biodiesels	100	magacin		50
Bitumen	100	magacin		

Fig. 49 Confirmation of the deletion of the entered energy source

Adding products

By clicking on the PRODUCTS menu (field no. 3. Fig. 46a.) a form is displayed for browsing data on products (Fig. 50.) produced by selected facility in the reporting year.

The screenshot shows the 'Facility Report Information' interface for the year 2023, with the 'PRODUCTS' tab selected. A table header is visible with columns: Product code, Product name, Measuring unit, Annual production, Installed capacity, Maximum stock capacity, and Average amount on stock. A red box highlights the table area, and a red '1' points to the '+ ADD' button in the top right corner. A red '2' points to the 'No data available' message in the table.

Product code	Product name	Measuring unit	Annual production	Installed capacity	Maximum stock capacity	Average amount on stock
No data available						

Fig. 50 Form for the inspection of products manufactured in the facility

The form in Fig.50. allows you to inspect, check and correct data on products manufactured in the facility subject to reporting.

Field no. 2. Fig. 50. contains a list of products that have been produced by the facility during the reporting year. To add a new product, you must click on the button in the upper left corner of the form, field no. 1. Fig.50. If you click on the button, you will get the form as in Fig. 51.

Facility Report Information 2023 PROIVODNO POSLOVNI OBJEKAT NA PAVLOVIĆA PUTU

WORKING REGIME FUELS PRODUCTS RAW MATERIALS REMARKS STATUS

Add Consumed Product

Product code 1 Product name 2 Measuring unit 3
"Product name" is required "Measuring unit" is required

Description 4

Annual production 5 Installed capacity 6 Engaged capacity - average 7
"Annual production" is required

Way of storing 8 Maximum stock capacity 9 Average amount on stock 10

Product code Product name Measuring unit Annual production Installed capacity Maximum stock capacity Average amount on stock

No data available

SUBMIT 11

12

Fig. 51. Facility product data entry form

The following data is used to describe the facility products:

1. Product brand – internal factory brand/product code
2. Name of the product
3. Unit of measurement of the product
4. Description of the product
5. Annual production
6. Installed facility capacity
7. Utilization of installed capacity
8. Location of storage
9. Maximum storage capacity
10. Average quantity in storage

The fields marked in red in (Fig. 51.) are mandatory. If all data is entered correctly, after clicking the Data entry button (field no. 11. Fig. 51.) the application returns to the form shown in (Fig. 50.), but the number of lines (field no. 2. Fig. 52.) is increased by one line. If you want to cancel the addition of energy, you must click on the X sign (field no. 12. Fig. 51.).

Facility Report Information 2023 POVRŠINSKI KOP RAŠKOVAC

WORKING REGIME FUELS PRODUCTS RAW MATERIALS WATER SUPPLY SYSTEMS SEWAGE SYSTEMS REMARKS STATUS

+ ADD

Product code	Product name	Measuring unit	Annual production	Installed capacity	Engaged capacity - average
coal	coal	tonne (metric ton)	3616605	3350000	110
electric power	electric power	megawatt hour (1000 kW.h)	21282011	2020000	106

2

Fig. 52. Appearance of field no. 2 after adding the product

To correct the data of the entered energy, it is necessary to click on the pencil icon (Fig. 52.). Then the form appears as (Fig. 51.) with all the fields filled in, whose values we can change.

To delete the previously entered energy product, we must click on the basket icon (Fig. 52.). After clicking on the basket icon, a new form opens, in which we are asked to confirm the deletion of the entered energy carrier (Fig. 49.).

Adding raw materials

Clicking on the menu RAW MATERIALS (field no. 4. SI.46a.) opens a form for checking the data on the raw materials used in the facility in the reporting year (SI.53).

Chemical name (according to IUPAC)	Commercial name	Aggregate state when storing	Measuring unit	Consumption per day
	Coal	hard	tonne (metric ton)	300

Fig. 53. Form for inspection products manufactured by facility

Field No. 2. (Fig. 53.) contains a list of products that have been produced by the facility during the reporting year. To add a new product, you must click on the button in the upper left corner of the form (field no. 1. Fig. 53.). If you click on the button, you will get the form (Fig. 54.).

Add Consumed Product

Chemical name (according to IUPAC) 1 Commercial name 2 Aggregate state when storing 3 Measuring unit 4 Consumption per day 5 Way of storing 6 Maximum stock capacity 7 Average amount on stock 8

Consumption per day is required

Commercial name is required

Measuring unit is required

9 SUBMIT

10 X

Fig. 54. Form for entering data on the raw materials used by facility

The following information serves to describe the farm's products:

1. Name of the raw material according to the IUPAC standard
2. Trade name of the raw material
3. Physical state of the raw material
4. Unit of measurement of the raw material
5. Average daily consumption
6. Type of storage
7. Maximum storage capacity
8. Average quantity in stock

After clicking the data entry button (field no. 9. Fig. 54.), the application returns to the form shown (Fig. 53.), but the number of lines (field no. 2. Fig. 54.) is increased by one line. If you want to cancel the addition of energy, you must click on the character X (field no.10. Fig. 54.).

Chemical name (according to IUPAC) ↑	Commercial name	Aggregate state when storing	Measuring unit	Consumption per day
	Coal	hard	tonne (metric ton)	300
	mercury	liquid	kilogram	0.1

Fig. 55. Layout of field no. 2 after adding a new raw material

To correct the data of the entered energy, it is necessary to click on the pencil icon (Fig. 55) then we get the form (Fig. 54.) with all the fields filled in, whose values we can change.

To delete the previously entered raw material, we need to click on the basket icon. After clicking on the basket icon, a new form opens in which we are asked to confirm the deletion of the entered raw material (Fig. 49.)

Air emission

To add data on air emissions, it is necessary to click on the option for AIR EMISSION in the submenu for reporting (Fig. 42. field no. 2) clicking on this submenu function displays a form as shown in (Fig. 56.).

Reporting year	Company	Facility name	Air pollutant source name	Status	Created by	Creation Date
2023	gis solutions	GIS F1	GIS_F1 01 AS1	NOT COMPLETED	san dej	08.05.2024

Fig. 56. initial form for working with air emissions

Four region are marked on Fig. 56:

1. Field for filtering and selecting data
2. List of sources of air emissions for which data on air emissions have been entered
3. Button to add a new shipment to the list of air emissions
4. Indicator when all required fields have been entered.

Field No. 1. (Fig. 56.) is used to query facilities with associated air emission sources for which data on air emissions in the reporting year have been entered (field No. 2. Fig. 56.). The entry in any field in the data filtering area automatically restricts the list of facilities listed in field no. 2. It is possible to filter by entering values in several fields of the filter section in order to reduce the number of facilities displayed in field no. 2.

Field no. 4. in the same screen shows whether all the necessary data for the respective source has been entered. The orange color of the field indicates that the data entry has not yet been completed, the green color indicates that all necessary data for the respective source has been entered.

To add a new emission source, click on the button in the top right-hand corner of the form (field. no. 3. Fig. 56.).

Adding data on air emissions

Clicking on the button, field no. 3. Fig. 56., opens the form for entering the air emission data, as shown in Fig. 57.

Emissions to Air

Create Air Emission Report

Reporting year
2023

Facility name

1

Air pollutant source name

2

16

Working regime

3

Annual Capacity Utilization (%)

4

Average annual temperature of output gases at the measuring point (oc)

5

Average annual speed of output gases at the measuring point (m/s)

7

Average annual outflow of measuring point (m3N/h)

8

Total number of working hours per year

8

Number of source working days per year

9

Number of source working hours per day

10

Annual season emission Winter (Dec, Jan, Feb)

11

Annual season emission Spring (Mar, Apr, May)

12

Annual season emission Summer (Jun, Jul, Aug)

13

Annual season emission Autumn (Sep, Oct, Nov)

14

15

SUBMIT

Fig. 57. Entering the basic data on air emissions

Enter the following data in the form (Fig. 57.):

1. Facility for which air emission data is being entered
2. The discharge belonging to the selected facility from which the air emission is made
3. Operating mode of the outlet
4. Percentage of utilization of the outlet
5. Average temperature of the gases at the outlet of the diffuser
6. Average velocity of the gases at the outlet of the diffuser
7. Average gas flow rate at the outlet
8. Total number of operating hours per year
9. Total number of working days per year
10. Number of working hours per day
11. Percentage of total emissions achieved during winter
12. Percentage of total emissions achieved in spring
13. Percentage of total emissions in summer
14. Percentage of total emissions in the fall

The fields filled with red text in (Fig. 57.) are mandatory fields.

After entering the base data about emissions in the air, it is necessary to click on the green button (field no. 15. Fig. 57.) to save the data. If you wish to cancel the data entry, you must click on the X sign (field no. 16. Fig.57.).

When the basic air emission data entry has been successfully completed, the user returns to the form shown (Fig. 58.), which is identical to (Fig. 56.); the only difference is the number of outlets for which they have been entered.

If an attempt is made to enter air emission data for a source for which data has already been entered in the top right corner of the form, an error message will be displayed.

Emissions to Air							+ CREATE AIR EMISSION REPORT	?
Reporting year	Company	Facility name	Air pollutant source name	Status	Created by	Creation Date		
2023	gis solutions	GIS F1	GIS_F1 01 AS1	NOT COMPLETED	san dej	08.05.2024		
2023	gis solutions	GIS F1	GIS_F1 01 AS2	NOT COMPLETED	san dej	08.05.2024		

Fig. 58. Changing the status in the list of discharges for which data on air emissions have been entered

By clicking on a line in the list of sources of air emissions, Fig. 58., you get the form as in Fig. 59.

Emission to air
2023
GIS F1
GIS_F1 01 AS1

WORKING REGIME
FUELS
EMISSIONS TO AIR
REMARKS

Reporting year
2023

Company name
gis solutions

Facility name
GIS F1

Pollutant Source name
GIS_F1 01 AS1

Working regime
Continual

Annual Capacity Utilization (%)
50

Average annual temperature of output gases at the measuring point (oc)
50

Average annual speed of output gases at the measuring point (m/s)
50

Average annual outflow of measuring point (m3N/h)
15

Total number of working hours per year
55

Number of source working days per year
55

Number of source working hours per day
8

Annual season emission Winter (Dec, Jan, Feb)
55

Annual season emission Spring (Mar, Apr, May)
66

Annual season emission Summer (Jun, Jul, Aug)
55

Annual season emission Autumn (Sep, Oct, Nov)
77

EDIT
36

Fig. 59. Form for entering data on the composition of emissions into the air

The form in Fig. 59. contains three units

1. The menu where the data set we want to enter is selected
2. General information about air pollution source
3. Button for correcting the entered data.

The menu for selecting a data set for input (Fig. 59. field no. 1.) can be seen (Fig. 60.) It is possible to choose between entering:

1. General data on the air emission
2. Fuels used by the combustion boiler
3. Composition of air emissions
4. Comments

Emission to air
2023
GIS F1
GIS_F1 01 AS1

WORKING REGIME
FUELS
EMISSIONS TO AIR
REMARKS

1

2

3

4

Reporting year
2023

Company name
gis solutions

Working regime
Continual

Annual Capacity Utilization (%)
50

Fig. 60 Menu for selecting the data set to be entered for the air emission

Fuels

Clicking on field no. 2, Fig. 60., calls up the form, Fig. 61., for entering data on fuels whose combustion products are released by the selected outlet.

If the emission originate from fuel combustion, field no. 2. fig. 35. it is obligatory to enter data on consumed fuel.

The screenshot shows the 'Emission to air' form for the year 2023. The 'FUELS' tab is selected. A red box highlights the table for entering fuel data. The table has columns for Fuel name, Total annual consumption (t or m3), Lower heating value of fuel (KJ/kg or KJ/m3), Sulphur, Nitrogen, and Chlorine. A red '1' is next to the table, a red '2' is next to the '+ ADD' button, and a red '3' is next to the 'STATUS' button.

Fig. 61. form for the inspection of fuels whose combustion products are released from the selected source

Fig. 61. shows three fields:

1. Field with a list of energy sources whose combustion products are released by the selected source
2. Field for adding a new fuel to be used in facility
3. Indicator when all required fields are filled in.

A new fuel is added by clicking on the field no. 3. (Fig. 61.). After clicking, the form appears on the screen (Fig.62.).

The screenshot shows the 'Add Consumed Fuel' form. The 'FUELS' tab is selected. The form contains several input fields: Fuel name (1), Total annual consumption (t or m3) (2), Lower heating value of fuel (KJ/kg or KJ/m3) (3), Sulphur (4), Nitrogen (5), Chlorine (6), Name of Additional Content 1 (7), Additional Content 1 (8), Name of Additional Content 2 (9), and Additional Content 2 (10). A red '11' is next to the 'SUBMIT' button. A red '12' is next to the 'X' button.

Fig. 62 Form for entering data on the fuel whose combustion products are released by the emission source

The fields highlighted in red (Fig. 62.) are mandatory fields.

The data entered using this form are

1. Name of the energy source
2. Annual energy consumption
3. Lower heat output of the energy source
4. Percentage of sulfur in the fuel
5. Percentage of nitrogen in the energy source
6. Percentage of chromium in the energy source
7. Name of additional component 1.
8. Percentage of component no. 1 in the energy source

9. Name of the additional component 2.
10. Percentage share of component no. 2. in the energy

If you click on the green button in the bottom right-hand corner of the form (field no. 11. Fig.62.) the data entered will be saved. To cancel the data entry, click on the X sign (field no. 12. Fig. 62.)

If you try to enter an energy source that has already been entered, an error message appears in the top right-hand corner of the form.

After entering the data, the form is displayed (Fig. 63.), in contrast to Fig. 61. In the list in Fig.63, the number of fuels whose combustion products are released by the selected source is increased by one.

Fuel name	Total annual consumption (t or m3)	Lower heating value of fuel (KJ/kg or KJ/m3)	Sulphur	Nitrogen	Chlorine	1	2
Aditives	33	33	3	3	3		

Fig. 63 Form for inspecting fuels data of fuels whose combustion products are released from the selected source

Pencil symbol (field no.1. Fig. 63.) stands for a function for correcting energy data. When you click on the pencil icon, a form like the one shown (Fig.62) appears on the screen. All fields of the form are filled with the previously entered values.

Basket symbol (field no. 2. Fig. 63.) is a function for deleting energy data. After clicking on the basket symbol, the entered fuel is removed from the list of used fuels.

Composition of air emissions

The form for inspecting the pollutants emitted into the air can be accessed by clicking on the AIR EMISSIONS menu (field no. 3 Fig. 60.) whereupon the form (Fig. 64.) appears.

Name of pollutant	Flue gas annual mean measured value (mg/Nm3)	Way of determining Flue gas	Emitted amounts (g/h)	Emitted amounts (kg/year)	Way of determining Emitted amounts	Accidental emitted amounts (kg/year)
No data available						

Fig. 64. Form for the inspecting pollutants realised into the air

Field No. 1. (Fig. 64.) contains a list of pollutants emitted into the air from the selected source (Fig. 64.) shows the situation in which not a single pollutant has been introduced.

A new pollutant is added by clicking (field no. 2. Fig. 64.) after clicking, a form as shown in (Fig. 65.) appears on the screen.

Fig. 65. Form for entering data on the pollutant emitted into the air

The fields filled with red text in SI.65. are mandatory fields.

Enter the following data in the form in SI.65:

1. Name of the pollutant
2. Concentrations of the pollutant emitted
3. Average emission rate
4. Annual quantity of the pollutant emitted
5. Method of measurement
6. Method of measurement
7. The total amount of pollutant emitted during incidents

To save the entered data, click on the green button in the bottom right-hand corner of the form (field no. 8. Fig. 65.) If you want to cancel the data entry, click on the X sign (field no. 9. Fig. 65.)

If you try to enter a pollutant that has already been entered, an error message will appear in the top right-hand corner of the form.

After entering the data, the form is displayed again as shown (Fig. 64.), in the list of pollutants in (Fig. 66.), the pollutant that was added during the previous procedure is displayed.

Fig. 66. Form for the inspecting pollutants released into the air

Pencil symbol (field no. 1. Fig. 66.) stands for a function for correcting energy data. When you click on the icon, a form like the one in Fig. 62. appears on the screen with the fields of the form filled in.

Basket symbol (field no. 2, Fig. 66.) is a function for deleting entered fuel. After clicking on the basket symbol, the entered energy source is removed from the list of used fuels.

Emission into water

To add data on emissions to water, the option for CREATE WATER EMISSIONS REPORT must be clicked on the field No. 3. (Fig. 42.). The form shown (Fig. 67.) is displayed.

The screenshot shows a web form titled "Emissions to Water". At the top right is a blue button labeled "+ CREATE WATER EMISSION REPORT" with a question mark icon. Below this is a table with columns: Report..., Company, Facility name, Water pollutant source name, Status, Created by, and Creation Date. The table contains two rows of data. The first row has a green "COMPLETED" status, and the second row has an orange "NOT COMPLETED" status. Four red boxes with numbers 1 through 4 highlight specific parts of the form: Box 1 highlights the filter section at the top; Box 2 highlights the table of emission sources; Box 3 highlights the "CREATE WATER EMISSION REPORT" button; and Box 4 highlights the status column in the table.

Report...	Company	Facility name	Water pollutant source name	Status	Created by	Creation Date
2023	GIS Solutions	GIS BB 01	GIS F1 01 WS1	COMPLETED	Dej San	06.05.2024
2023	GIS Solutions	GIS BB 02	GIS F1 02 WS1	NOT COMPLETED	Dej San	06.05.2024

Fig .67. Form for inspection of water emissions

Four Boxes marked (Fig. 67.) are:

1. Box for filtering and selecting data
2. List of water sources for which data on water emissions have been entered
3. Button for adding a new show to the stream
4. Indicator when all required fields are filled in

Field no. 1 (Fig. 67.) enables the query of facilities with associated emission sources that are visible in the list of facilities entry (field no. 2. Fig. 67). By typing in any field query area automatically restricts the list of facilities visible in the list in field no. 2. It is possible to filter by entering values in several fields of the filter section in order to reduce the number of facilities displayed (field no. 2. Fig.67.)

Field no. 2. (Fig. 67.) contains a list of sources of emissions to water for which data on emissions have been entered. Field no. 4 in the same screen shows whether all required data for the respective outlet has been entered. The orange color of the field indicates that the data entry is not yet complete, the green color of the field indicates that all required data for the outlet has been entered.

Adding data on emissions into the water

Click on the button (field no. 3. Fig. 67.) opens the form for entering data on the emission, as shown in (Fig. 68.).

Emissions to Water

Create Water Emission Report

Reporting year: 2023

Facility name ¹ ₂ **1** *Facility name* is required

Water pollutant Source ¹ ₂ **2** *Water pollutant Source* is required

Working regime ¹ ₂ **3** *Working regime* is required

Period of time of discharges (day/year) ¹ ₂ **4** *Period of time of discharges (day/year)* is required

Total yearly amount of discharged wastewater at the sewer (m3/year) ¹ ₂ **5** *Total yearly amount of discharged wastewater at the sewer (m3/year)* is required

6 **SUBMIT**

7 **X**

Fig.68: Entering the basic data on emissions into the water

The following data must be entered in the form (Fig. 68.):

1. Facility for which data on emissions to water are entered
 2. The discharge belonging to the selected facility from which the emission to water occurs
 3. Operating mode of the source
 4. Number of days per year that the source is active
 5. Total amount of liquid discharged during the year
- The fields filled with red text in Fig. 68. are mandatory fields.

After entering the basic data on emissions to water, it is necessary to click on the green button (field no. 6. Fig. 68.) to save the data, to cancel the input click on the X sign (field no. 7. Fig. 68.)

If the input of the basic data of water emissions has been successfully completed, the user returns to the form shown in (Fig. 69.), where the source added in the previous procedure is displayed in the list of sources.

If you try to add sources that are already entered in the top right-hand corner of the form, an error message is displayed.

Emissions to Water **+ CREATE WATER EMISSION REPORT**

Report...	Company	Facility name	Water pollutant source name	Status	Created by	Creation Date
2023	GIS Solutions	GIS BB 01	GIS F1 01 WS1	COMPLETED	Dej San	06.05.2024
2023	GIS Solutions	GIS BB 02	GIS F1 02 WS1	NOT COMPLETED	Dej San	06.05.2024
2023	GIS Solutions	GIS BB 02	GIS F1 02 WS1	NOT COMPLETED	Dej San	07.05.2024

Sl.69 Change of status in the list of discharges for which data on emissions to water have been entered

Since the data has just been entered, the indicator of whether all the required data has been entered is orange. To complete the input of the discharge data, the data for the analysis of the discharged liquid as well as the analysis of the receiver before the source and after the emission source must be entered.

The data entry process for the composition of the emission begins by clicking on the line relating to the discharge (Fig .69.).

Fig. 70. Form for entering data on the composition of emissions into water

There are three units on the form (Fig. 70.):

1. The menu in which the data set to be entered is selected
2. General information about the emission to water
3. Button for correcting the general data

Menu for selecting a data set for entry (Fig. 70. field no. 1.) can be seen in Fig. 71.

Sl.71 Menu for selecting the data set to be entered for the emission into the water

It is possible to choose between entering:

1. Checking the correction of the general emission data
2. Analysis of emissions to water
3. Analysis of the receiver
4. Comments

Waste water composition

To obtain a form for entering data on the composition of emissions into water (Fig .72.), click on field no.2. (Fig. 71.).

Emission to water 2023 GIS F1 GIS F1 W1 3 ?

WORKING REGIME ANALYSIS OF WASTEWATER RECIPIENT ANALYSIS REMARKS ? STATUS

2 + ADD

Name of pollutant	Annual mean measured value of pollutant in wastewater (mg/l)	Emitted amounts (kg/year)	Way of determining	Accidental emitted amounts (kg/year)
No data available 1				

Fig. 72. Form for inspecting the composition of emissions into the water

Fig. 72. shows three fields:

1. A field with a list of pollutants that are emitted
2. Field for adding a new pollutant
3. Indicator whether all required data has been entered

No pollutant has been entered for the selected emission source (field no. 1 Fig.72.). Indicator of whether the required data has been entered (field no. 3 Fig. 72.) is colored orange and indicates that the data entry for the selected emission source has not yet been completed. For the pointer to change color to green, at least one pollutant must be entered.

A new pollutant is added by clicking (field No. 3 Fig. 72.), after clicking, a form as shown in (Fig. 73.) appears on the screen.

Emission to water 2023 GIS F1 GIS F1 W1 ?

WORKING REGIME ANALYSIS OF WASTEWATER RECIPIENT ANALYSIS REMARKS ? STATUS

Add Wastewater Analysis 9 X

Name of pollutant 1 *Name of pollutant* is required

Annual mean measured value of pollutant in wastewater (mg/l) 2 *Annual mean measured value of pollutant in wastewater (mg/l)* is required

Emitted amounts (kg/year) 3 *Emitted amounts (kg/year)* is required

Way of determining 4 *Way of determining* is required

Method of determining 5 *Method of determining* is required

Accidental emitted amounts (kg/year) 6

8 SUBMIT

Name of pollutant	Annual mean measured value of pollutant in wastewater (mg/l)	Emitted amounts (kg/year)	Way of determining	Accidental emitted amounts (kg/year)
No data available 7				

Fig.73. Form for entering data on the composition of emissions into the water

The fields marked in red in Fig. 73. are mandatory fields for input.

The data entered using this form are:

1. Name of the pollutant
2. Average concentration of the pollutant
3. The amount of the pollutant released during the year
4. Method of measurement
5. Method of measurement

6. Amount of pollutant emitted in an accident situation

Field No. 7. (Fig. 73.) contains a list of pollutants that can be found in the liquid discharged into the water.

To save the entered data, it is necessary to click on the green button in the lower right corner of the form (field no. 8. Fig. 73). To cancel the entry of pollutant data, click on the X symbol (field no. 9. Fig. 73.).

After entering the pollutant that is part of the emission to water (field no. 7. Fig. 73.) there is a line with a newly entered pollutant. Indicator showing whether all data has been entered (field no. 3. Sl.74.). The pointer has changed its color from orange to green because a pollutant has been introduced, which is a condition for the color change of the pointer.

Name of pollutant	Annual mean measured value of pollutant in wastewater (mg/l)	Emitted amounts (kg/year)	Way of determining	Accidental emitted amounts (kg/year)
ALDRIN	50	15	Calculation	

Fig. 74. Form for inspecting composition of emissions into the water according to the pollutant discharged

The pencil symbol (field no. 1 Fig.74.) represents the function for correcting the pollutant data. By clicking on the symbol, a form as shown in (Fig. 73.) appears on the screen, all fields are filled with the previously entered values.

Trash box symbol (field no. 2, Sl.74) represents the function for deleting pollutant data. After clicking on the basket symbol, the entered pollutant is removed from the list of pollutants that emit part of the water.

Status of the receiver

To enter data to analyze the receiving water before and after discharge into the water body, it is necessary to click on the menu ANALYSIS OF RECEIVER (field no. 3 Fig. 71.) whereupon the form as shown (Fig. 75.) is displayed.

Name of pollutant	Measuring unit	Before wastewater discharge	After wastewater discharge	Way of determining
No data available				

Fig.75. Form for inspecting the analysis of the recipient

Fig. 75. shows three fields

1. Field with a list of pollutants contained in the emission
2. Field for adding a new pollutant
3. Indicator of whether all required data has been entered

No data from a receiver analysis before and after the emission source has been entered for the selected emission source (field no. 1. Fig. Sl.75.). Indicator of whether the required data has been entered, field no. 3. Sl.75. is orange, which means that the required data has not been entered. For the indicator to change color, at least one pollutant must be entered.

A new pollutant is added by clicking on field no. 3. Fig. 75. After clicking, a form as shown in Fig. 76. appears on the screen.

Emission to water 2023 GIS F1 GIS F1 W1

WORKING REGIME ANALYSIS OF WASTEWATER RECIPIENT ANALYSIS REMARKS STATUS

Add Recipient Analysis

Name of pollutant 1 Measuring unit 2

Name of pollutant is required *Measuring unit* is required

Before wastewater discharge 3 After wastewater discharge 4

Before wastewater discharge is required *After wastewater discharge* is required

Way of determining 5 Method of determining 6

Way of determining is required *Method of determining* is required

8 SUBMIT 9

Name of pollutant	Measuring unit	Before wastewater discharge	After wastewater discharge	Way of determining
No data available				

Fig. 76. Form for entering data from the analysis of the recipient before and after the emission source

The fields marked in red in Fig. 76. are mandatory fields for input.

The data entered in the form in Fig. 76. are:

1. Name of the pollutant
2. Unit of measurement
3. Pollutant concentration before discharge
4. Pollutant concentration after discharge
5. Method of measurement
6. Measurement method

To save the entered data, you must click on the green button in the bottom right-hand corner of the form (field no. 8 Fig. 76.). If you want to cancel the entry of the pollutant data, you must click on the X symbol (field no. 9. Fig. 76.).

After entering the pollutant that is part of the emission into the water line will be added to field no.1. Fig.75. Indicator showing whether all data has been entered (field no. 3. Fig. 72.) has changed color from orange to green because at least one pollutant has been discharged (Fig. 77.).

Emission to water 2023 GIS F1 GIS F1 W1

WORKING REGIME ANALYSIS OF WASTEWATER RECIPIENT ANALYSIS REMARKS STATUS

+ ADD

Name of pollutant	Measuring unit	Before wastewater discharge	After wastewater discharge	Way of determining
ALDRIN	µS/cm	22	33	Calculation

1 2

Fig. 77. Form for inspection of emission content after addition of the pollutant

Line with newly introduced pollutant is visible on field no. 1. (Fig. 75.). Indicator showing whether all data has been entered (field no. 3. Fig. 75.) has changed color from orange to green because at least one pollutant has been entered. (Fig. 77.)

Pencil symbol (field no. 1. Fig. 77.) stands for a function for correcting pollutant data. By clicking on the symbol, a form appears on the screen as shown in SI.76, in the opened form all fields are filled with the previously entered values.

The basket symbol (field no. 2. Fig. 77.) represents the function for deleting pollutant data. After clicking on the basket symbol, the entered pollutant is removed from the list of pollutants that emit part of the water.

Emission into the soil

To add data on emissions to soil, the option Emissions to soil must be clicked in the submenu Reporting field no. 4 Fig. 42. clicking on this submenu function displays a form as shown in Fig. 78.

The screenshot shows a web application interface titled "Emissions to Land". At the top right is a button labeled "+ CREATE LAND EMISSION REPORT" with a question mark icon. Below the title is a filter section with several dropdown menus: "Report...", "Company", "Facility name", "Land pollutant source name", "Status", "Created by", and "Creation Date" (with "From" and "To" sub-fields). Below the filter section is a table with two rows of data. The first row has a status of "NOT COMPLETED" (orange box), and the second row has a status of "COMPLETED" (green box). The table columns correspond to the filter dropdowns. Four red boxes with numbers 1 through 4 are overlaid on the image: 1 is on the filter section, 2 is on the table, 3 is on the top right button, and 4 is on the status column of the table.

Report...	Company	Facility name	Land pollutant source name	Status	Created by	Creation Date
2023	GIS Solutions	GIS BB 01	GIS 01 LE 01	NOT COMPLETED	Dej San	06.05.2024
2023	GIS Solutions	GIS BB 02	gis bb 02 le1	COMPLETED	Dej San	06.05.2024

Fig. 78. form for the inspection of emissions into the soil

Four boxes are marked (Fig. 78.):

1. Box for filtering and selecting data
2. List of water sources for which data on emissions to soil have been entered
3. Button for adding a new emission to soil
4. Indicator when all required fields are filled in.

Field no. 1. (Fig. 78.), is used to query the facilities that are visible in the list of facilities (field no. 2. Fig. 78.). The entry in any field in the data query area automatically restricts the list of facilities listed in field no. 2. It is possible to create query by entering values in several fields of the filter section in order to reduce the number of facilities displayed in field no. 2.

Field no. 2. (Fig. 78.) contains a list of the sources of the emission to soil for which data on emissions have been entered. Field no. 4. in the same screen shows whether all required data for the corresponding emission source has been entered. An orange box indicates that the data entry is not complete, while a green box indicates that all required data has been entered for the outlet in question.

To add general data for a specific emission source, click on the button in the top right-hand corner of the form (field ition no.3. Fig.78.).

Emissions to soil

Clicking on the button (field no. 3 Fig. 78.) opens the form for entering data on the emission as shown in (Fig. 79.).

Emissions to Land

Create Land Emission Report

Reporting year: 2023

Facility name 1 *Facility name* is required

Land pollutant source name 2 *Land pollutant source name* is required

Type of waste disposed 3 *Type of waste disposed* is required

Index number of waste disposed 4 *Index number of waste disposed* is required

Yearly amount of waste disposed (t/year) 5 *Yearly amount of waste disposed (t/year)* is required

Total amount of waste disposed (t) 6

Disposal operation 7 *Disposal operation* is required

8 ✓ SUBMIT

Fig. 79. Entering the basic data on emissions into the soil

The fields marked in red in Fig. 79. are mandatory fields for input.

The data entered with this form are:

1. Facility for which data on emissions to land are entered
2. Name of emission source
3. Origin of the waste
4. Waste index number
5. Annual amount of waste emitted
6. Total amount of waste disposed of
7. Method of waste disposal

The index number of the waste is entered by starting to enter the index number and the program offers index numbers for selection based on the data entered (Fig. 80.).

Index number of waste disposed 1

20

- 20 01 02 glass
- 20 01 08 biodegradable kitchen and canteen waste
- 20 01 10 clothes
- 20 01 11 textiles 2
- 20 01 13* solvents
- 20 01 14* acids

Fig. 80. Selection of the waste index number.

After entering the basic emissions in the soil, it is necessary to click on the green button (field no. 8. Fig. 79.) to save the data.

If you want to cancel the data entry, you must click on the X sign (field no. 9. SI.79.).

When the process of entering the basic data on emissions into the soil has been successfully completed, the user returns to the form shown (Fig. 81.) which is identical to Fig. 78., the only difference being the number of outlets for which they have been entered.

Emissions to Land							+ CREATE LAND EMISSION REPORT	?
Report...	Company	Facility name	Land pollutant source name	Status	Created by	Creation Date		
						From To		
2023	GIS Solutions	GIS BB 01	GIS 01 LE 01	NOT COMPLETED	Dej San	06.05.2024		
2023	GIS Solutions	GIS BB 02	gis bb 02 le1	COMPLETED	Dej San	06.05.2024		
2023	GIS Solutions	GIS BB 02	GIS 01 LE03	NOT COMPLETED	Dej San	07.05.2024		

Fig. 81 Change of discharges for which data on emissions to soil have been entered

As the data has just been entered, the indicator of whether all the required data has been entered is orange. To complete the process of entering discharge data, it is necessary to enter data on the pollutants contained in the waste. To start the process of entering data on the composition of the emission, you must click on the line that refers to the outlet for which we want to enter data on the composition of the emission.

If the emission to the ground consists of several different index numbers of waste, the process is repeated as many times as there are index numbers for this emission.

If the user attempts to enter data with the same index number twice, an error message will appear in the top right-hand corner of the form.

By clicking on the line that contains data on the emissions in the soil (Fig. 81.) the form as shown (Fig. 82.) is displayed.

Emissions to Land
2023
GIS BB 02
GIS 01 LE03

WORKING REGIME
EMISSIONS TO LAND
REMARKS
1

Reporting year
2023
Company name
GIS Solutions
Facility name
GIS BB 02
Pollutant Source name
GIS 01 LE03

Type of waste disposed
Industrial
Index number of waste disposed
20 01 01 - paper and cardboard

Yearly amount of waste disposed (t/year)
100
Total amount of waste disposed (t)
300

Disposal operation
D2 - Exposing waste to processes in land (e.g. biodegradation of liquid waste or sludge in soils)

EDIT
3

2

SI.82 Form for entering data on about emmision to soil

On the form in Fig. 82. there are three units:

1. The menu where the data set to be entered is selected
2. General information about the shipment entered by the user
3. Button for correcting the general data on the consignment

Menu for selecting a data set for input (Fig.82. field no. 1.) can be seen (Fig. 83.) It is possible to choose between the input:

1. Review of the correction of the general emission data

- 2. Composition of the consignment
- 3. Remarks

Emissions to Land

2023

GIS BB 02

GIS 01 LE03

WORKING REGIME

EMISSIONS TO LAND

REMARKS

1

2

3

Reporting year

2023

Company name

GIS Solutions

Fig. 83. Menu for selecting the data set to be added for the emission into the soil

Clicking on (field no. 2, Fig. 83.) displays a form for entering the data on the composition of emissions to soil.

Emissions to Land

2023

GIS BB 02

GIS 01 LE03

WORKING REGIME

EMISSIONS TO LAND

REMARKS

3

?

2

+ ADD

Name of pollutant

Concentration of pollutant in waste (mg/kg s.m.)

1

Amount of pollutant in disposed waste (kg/year)

Way of determining

Method of Determining

No data available

Fig. 84 Form for the composition of emissions in the soil inspection

- Fig. 84. shows three fields:
- 1. Field with a list of pollutants contained in the emission
 - 2. Field for adding a new pollutant
 - 3. Indicator when all required fields are filled in.

Not a single pollutant has been entered for the selected emission source (field no. 1 Fig. 84.) indicator of whether the required data has been entered (field no. 3 Fig. 84.) is orange because not a single pollutant has been entered. At least one pollutant must be entered for the indicator to change color.

A new pollutant is added by clicking (field no. 3. Fig. 84.) after clicking, a form as shown in Fig. 85. appears on the screen.

Fig. 85. Form for entering data on the composition of emissions into the soil

The fields marked with red text in Fig. 85. are mandatory fields.

The data entered with this form are:

1. Name of the pollutant
2. Concentration of the pollutant
3. Share of the pollutant in total emissions during the year
4. Method used to measure the pollutant
5. Measurement method

To save the entered data, click on the green button in the bottom right-hand corner of the form (field no. 6. Fig. 85.). If you want to cancel the data entry, click on the X sign (field no. 7. Fig. 85.).

If you try to enter a pollutant that has already been entered, an error message will appear in the top right-hand corner of the form.

After entering the data, in contrast to Fig. 84, the form shown in Fig. 86 appears with the newly entered pollutant.

After a pollutant has been entered, the color of the pointer indicating whether mandatory data has been entered changes to green (Fig. 86.).

Sl. 86 Form for the inspection of emissions to soil after the discharge of pollutants entered

Pencil symbol (field no. 1. Fig. 86.) stands for a function for correcting pollutant data. By clicking on the symbol, a form as shown (Fig. 85.) appears on the screen, provided that all fields are filled with the previously entered values.

Basket symbol (field no.2. Fig. 86.) is a function for deleting pollutant data. After clicking on the basket symbol, the entered pollutant is removed from the list of pollutants emitting part of the soil.

Waste generation

To add data about generated waste, it is necessary to click on the waste generation option in the reporting submenu (Fig. 42 field no. 5.); clicking on this submenu function displays a form as shown (Fig. 87.)

Reporting year	Company	Facility name	Waste from waste catalog	Status	Created by	Creation Date
2023	Monting Montaza d.o.o. Bijelina	Proizvodno poslovni objekt na parlovića putu	20 01 01	NOT COMPLETED	dej sen	19.05.2024

Sl.87. Form for inspecting the amount of waste generated in the reporting year

Four boxes are marked in Sl.87:

1. Field for filtering and selecting data
2. List of waste generated by the facility in the reporting year
3. Button for adding new waste

Field no. 1. (Fig. 87.) is used to query the facilities that are visible in the list of facilities, field no. 2. Fig. 87. entering any field in the data filtering area automatically restricts the list of facilities that are in the list in field no. 2. It is possible to query by entering values in several fields of the query section in order to reduce the number of facilities displayed in field no. 2.

Field no. 2. (Fig. 87.) lists the different types of waste generated in the facilities during the reporting year. Field no. 4. in the same screen shows whether all the required data for the corresponding waste code has been entered. An orange box indicates that the data entry is not complete, while a green box indicates that all required data has been entered for that output.

To add new waste, click on the button in the upper right corner of the form (field no. 3. Fig. 87.).

Adding waste

Clicking on the button (field no. 3 Fig. 87.) opens the form for entering data for the emission as shown in (Fig. 88.).

Waste Productions

Create Waste Production Report

Reporting year: 2023

Facility name: 1

Waste from waste catalog: 2

Type of waste: 3

Waste character: 4

Description: 5

Waste category - Q list: 6

Physical state of waste: 7

Report number for Waste Examination: 8

Date of Issue for Waste Examination: 9

SUBMIT: 10

Fig. 88. Entering the basic data on emissions into the soil

The fields are marked with red text in Fig. 88. are mandatory fields.

The data entered with this form are:

1. Facility for which data on emissions to land are entered
2. Index number of the waste for which the data are entered
3. Origin of the waste
4. Type of waste
5. Description of the waste
6. Q-list of the waste
7. Physical condition of the waste
8. Number of waste inspection reports
9. Date of the waste inspection report

The index number of the waste is entered by starting to enter the index number and the program offers index numbers for selection based on the data entered (Fig. 80.).

To save the data after entering the basic data about generated waste, it is necessary to click on the green button (field no. 10. Fig. 88.)

If you want to cancel the data entry, you must click on the X sign (field no. 11. Fig. 88.).

When the process of entering the basic data about generated waste, the user returns to the form shown (Fig. 89.), which is identical to Fig. 87., the only difference being the number of outlets for which they have been entered.

Waste Productions							+ CREATE WASTE PRODUCTION REPORT ?
Reporting year	Company	Facility name	Waste from waste catalog	Status	Created by	Creation Date	
2023	Monting Montaza d.o.o. Bijeljina	Proizvodno poslovni objekat na pavlovića putu	20 01 01	NOT COMPLETED	dej san	19.05.2024	
2023	Monting Montaza d.o.o. Bijeljina	Proizvodno poslovni objekat na pavlovića putu	19 01 05*	NOT COMPLETED	dej san	19.05.2024	
2023	Monting Montaza d.o.o. Bijeljina	Proizvodno poslovni objekat na pavlovića putu	19 01 05*	NOT COMPLETED	dej san	19.05.2024	

Fig. 89. Change in the list of generated waste

Since only the basic data for the generated waste has been entered, the indicator showing whether all the required data has been entered is orange.

By clicking on the line with the data on the generated waste, a form as shown in Fig. 90. is displayed.

Waste Production 2023 PROIZVODNO POSLOVNI OBJEKAT NA PAVLOVIĆA PUTU			
GENERAL DATA COMPONENTS AMOUNTS MANAGMENT REMARKS 1			
Reporting year 2023	Company name Monting Montaza d.o.o. Bijeljina	Facility name Proizvodno poslovni objekat na pavlovića putu	Waste from waste catalog 19 01 05*
Type of waste Industrial	Waste character Hazardous	Description of waste ЖКК/ЖКЛ	
Waste category - Q list	Physical state of waste Solid-powder	Report number for Waste Examination	Date of Issue for Waste Examination 2024-05-08T00:00:00
Code of hazardous waste characteristics:	H list H1	/ H list	/ H list
Hazardous waste category by the origin and composition:	Y list Y14	/ Y list	/ Y list

2

3 EDIT

Fig. 90. Form for entering data on generated waste

Four boxes are marked (Fig. 90.):

1. The menu where the record we want to enter is selected
2. General waste data
3. Button for correcting the general waste data

The menu for selecting a data set for input, Fig. 90. field no. 1, can be seen in Fig. 91.



Fig. 91. Menu for selecting the data set to be entered generates waste

It is possible to choose between entering:

1. Verification of the correction of the general data on the generated waste
2. Quantities of waste
3. Waste management
4. Remarks

By clicking on field no. 2. (Fig. 91.) you will receive a form for entering the data about amount of generated waste in the reporting year (Fig. 92.).

Fig. 92. Form for adding amounts of generated waste

The data entered with this form are:

1. Quantity of waste produced during the year
2. Method for determining the quantity
3. Amount of waste temporarily stored at the facility at the beginning of the year
4. Amount of waste temporarily stored in the facility at the beginning of the year

The sum of the amount of waste at the beginning of the reporting year, the amount of waste generated and the amount of waste disposed of must be equal to the amount of waste at the end of the year.

To enter data on the quantity of waste generated and the quantity of waste temporarily stored at the facility, click on field no. 5. (Fig. 92.)

Fig. 93. Form for the entry/correction of data on waste quantities

The form (Fig. 93.) is identical to the form in Fig. 92., the only difference is that there are buttons in the bottom right-hand corner of the form for entering or canceling the data entry/modification.

Waste management

Clicking on field no. 3. (Fig. 91.) takes you to a form in which you can enter what happens to the waste after it is handed over to the authorized operator.

The licensed operator is obliged to inform the facility owner of this:

1. The quantity of waste he has accepted for disposal
2. The quantity of waste deposited
3. The quantity of waste handed over for recycling
4. The quantity of waste exported to another country

For each phase of waste management, the name of the storage facility and the number of the permit issued for this facility must be known.

To start the data collection process for the waste shipment, click on field no. 3 (Sl.91), whereupon the form (Sl.94) appears.

Fig. 94. Form for tracking the shipment of waste

The user can enter data for wastes with the same index number several times if the same waste is collected by different operators. The number of entries for wastes with the same index number must correspond to the number of different operators who have collected these wastes.

To add waste shipment stages, you must click on the blue button (field no. 1. Fig. 94.). This will open a small menu as shown in Fig. 95., from which one of the four waste shipment stages can be selected.

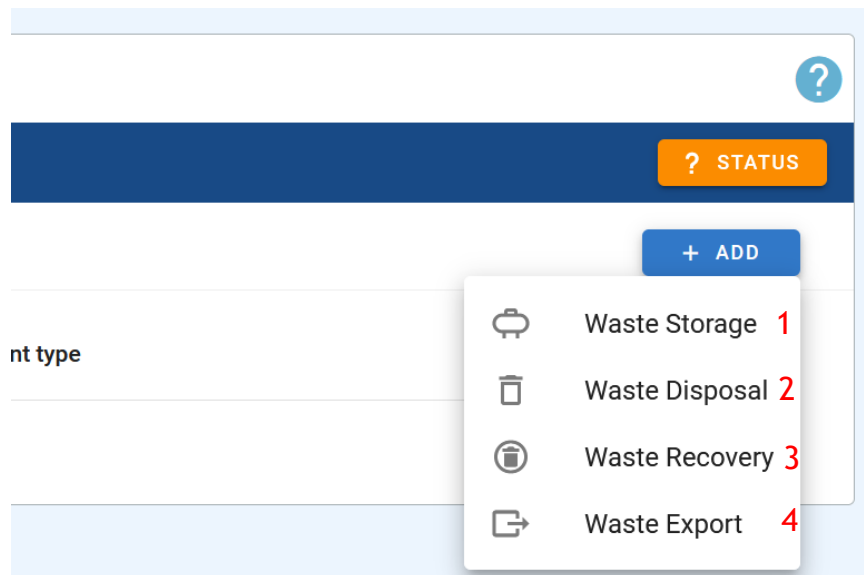


Fig. 95. Menu for entering data on the waste shipment phases

The first step in the waste shipment process is the transfer of the waste to the operator, the data entry begins by clicking on field no. 1. Fig. 95. then the form opens with SI.96.

Fig. 96. Handing over the waste to the disposal company

The data entered with this form are:

1. Name of the depot where the collected waste will be disposed of
2. Number of the permit for the operation of the storage facility where the waste is disposed of
3. Quantity of waste delivered in tons
4. Classification of the waste according to D or R list

The fields (Fig. 96.) which are filled with red text in the figure, represent fields whose entry is mandatory.

After entering the basic data about generated waste amount, it is necessary to click on the green button (field no. 5. Fig. 96.) to save the data, to cancel the data entry click on the X sign (field no. 6. Fig. 96.).

When the data entry for the submission of waste for storage has been successfully completed, the user returns to the form shown (Fig. 97.), which indicates that the data for the first step in the waste shipment process has been entered.

Fig. 97. Overview of the waste streams with details of the waste collected

Data on the next three stages of waste transportation must be provided to the facility owner by the operator responsible for waste collection.

To enter information on the quantity of permanently deposited waste, click on field no. 2. Fig. 95. The form as shown in Fig. 98. then opens.

Fig. 98: Form for entering data on deposited waste

The data entered with this form are:

1. Name of the storage facility where the collected waste is deposited
2. Number of the permit issued for the operation of the storage facility where the waste is deposited
3. Quantity of submitted waste that has been deposited
4. Classification of the waste according to the D-list

The fields (Fig. 98), which are filled with red text represent fields whose entry is mandatory.

To save entered data about permanently deposited waste it is necessary to click on the green button (field no. 6. Fig. 98), click on the X sign (field no. 6 Fig. 98.) to cancel the data entry.

When the data entry about permanently deposited waste has been successfully completed, the user returns to the form shown in (Fig. 99), which indicates that the data for the second step of the waste shipment process has been entered.

Facility name	Permit number	Waste amount (t)	D or R code	Waste Management type
Deponija Duboko	q123/2023	100	D15	Waste Storage
Duboko	XC457/2023	15	D10	Waste Disposal

Fig .99. Form for the overview of the waste stream with the entered data on delivered and deposited waste

To enter data on the amount of recycled waste, click on field no. 3 (Fig. 95.), the form as shown in Fig.100. is then displayed.

Fig.100. Form for entering data on the recycled quantity of waste

The information in this form is identical to the information in the forms for the submission and deposit of waste. The difference to the deposited waste is that the waste is classified according to the R-list.

To enter data on the exported waste quantity, you must click on the No. field. 4. Fig. 95. You will then receive the form as shown (Fig. 101.).

Fig. 101. Form for entering data on exported waste

The data entered with this form are:

1. The country to which the waste was exported
2. Quantity of waste exported
3. Classification of the waste according to the D or R list
4. Name of the storage facility where the waste is to be deposited
5. Address of the warehouse
6. The place where the warehouse is located
7. Postal code of the warehouse

The fields (Fig.101) which are filled with red text represent fields whose entry is mandatory.

After entering the data about exported amounts of waste, it is necessary to click on the green button (field no.8 Fig.101.) to save the data, to cancel the data entry it is necessary to click on the X sign (field no. 9. Fig.101.).

When the data entry for the submission of waste for storage has been successfully completed, the user returns to the form shown (Fig. 102.) which indicates that the data for the first step of the waste shipment process has been entered.

Waste Production 2023 POVRŠINSKI KOP RAŠKOVAC					? STATUS	
GENERAL DATA AMOUNTS MANAGAMENT REMARKS					+ ADD	
Facility name	Permit number	Waste amount (t)	D or R code	Waste Management type		
Deponija Duboko	q123/2023	100	R12	Waste Storage	1	2
Duboko	XC457/2023	15	D10	Waste Disposal		
Kartonka Avala	y687/243	80	R1	Waste Recovery		
AVG WASTE		5	D10	Waste Export		

Fig. 102. Overview of the waste stream showing all four phases of the movement

Pencil symbol (field no.1. Fig.102.) represents a function for correcting the data of the individual phases of the waste movement. filled with the previously entered values. By clicking on the basket symbol (field no. 2. Fig.102.) all data for the entered phase of the waste shipment is deleted.

Checking data

Fig.103 shows a form with data on the amount of waste generated and the status of interim storage in the facility.

Waste Production 2023 POVRŠINSKI KOP RAŠKOVAC		? STATUS	
GENERAL DATA AMOUNTS MANAGAMENT REMARKS			
Yearly amount of waste produced 180	Way of determining the amount of waste Estimation		
State of the temporary storage as of date 1. January (t) 11	State of the temporary storage as of date 31. December (t) 111		
		CANCEL SUBMIT	

Fig.103: Overview of the quantities of waste generated and temporarily disposed of in the facility.

Waste Production 2023 POVRŠINSKI KOP RAŠKOVAC					? STATUS	
GENERAL DATA AMOUNTS MANAGAMENT REMARKS					+ ADD	
Facility name	Permit number	Waste amount (t)	D or R code	Waste Management type		
Deponija Duboko	q123/2023	100	R12	Waste Storage	1	2
Duboko	XC457/2023	15	D10	Waste Disposal		
Kartonka Avala	y687/243	80	R1	Waste Recovery		
AVG WASTE		5	D10	Waste Export		

Fig. 104. Overview of the quantities of waste generated per index number ant waste flow after disposed from facility

The information on these two forms must match the quantity of waste disposed from the facility (Fig. 103.) and amounts waste of the in different phases of waste flaw (Fig. 104.).