CONVENTION ON THE COLLECTION, DEPOSIT AND RECEPTION OF WASTE PRODUCED DURING NAVIGATION ON THE RHINE AND INLAND WATERWAYS

CDNI

ECO-account and SPE-CDNI 3.0 system

1st January 2011 saw the introduction of an electronic payment system (SPE-CDNI) for the collection and disposal of oily and greasy waste resulting from the operation of vessels. The disposal of this waste is financed by a disposal charge paid by the vessel operator. Payment of this charge requires the **opening of an ECO account** which is the key to accessing the SPE-CDNI and the disposal of oily and greasy waste.

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1. Everything starts with the ECO account…

The ECO account is opened by the vessel's operator or owner with the national institution (NI) of his choice.

Opening the account is preceded by completion of an online registration form. Upon receiving the form, the NI will create an ECO account and give access to the SPE-CDNI app.

The opening of the ECO account will enable the vessel's operator or owner to credit his ECO account with sufficient funds to cover subsequent disposal charges. The payment is to be made to the NI's bank account; the NI will ensure that the information on the amounts collected is immediately sent to the SPE-CDNI, then transferred to the depositor's or account holder's ECO account. Once this data has been registered in the SPE-CDNI, the amount paid in will be available, for payment of the disposal charge, when purchasing gas oil anywhere within the CDNI's area of application. Any unused credit may be returned to the depositor at any time.

All users can consult their ECO account online. The ECO account bears the name of the vessel's operator and/or owner. The corresponding vessel can be selected in the SPE-CDNI app.

Registration form for opening an ECO-account: https://new.spe-cdni.org/RequestEcoAccount

2. …and continues with the SPE-CDNI app

The CDNI's electronic payment system (SPE – CDNI) was migrated to a fully digital system, SPE-CDNI 3.0, on 9 August 2023. The new system is based on a digital solution in the form of an app, the CDNI app, which can be used on various digital devices.

The SPE-CDNI app and the printed QR-code enable boatmasters to pay the disposal charge every time they bunker with zero-rated gas oil. Payment of this charge will confer access rights to points of acceptance distributed throughout the contract area, where oily and greasy ship-generated waste can be handed in free of charge.

The SPE-CDNI app is the second component of the SPE-CDNI. Using the SPE-CDNI app, the ECO-account holder can link a vessel to the associated ECO-account using the ECO-ID (a unique identification number). The SPE-CDNI app thus forms the direct link between the ECO-account and the respective vessel. The SPE-CDNI app is used to charge the payment of the disposal charge to the ECO account in question.

The new system is accessible via the following link: new.spe-cdni.org

The smartphone application is accessible in the Google Play Store and the Apple App Store.

3. What do I have to do to use the system ?

A) I want to use the app

ECO account holders need to do the following:

- **Add boatmasters**

The ECO-account holder will arrange for boatmasters to be given access to the app for smartphones/tablets or PCs/laptops. To provide these boatmasters with the access data for using the app, an email address needs to be entered for each boatmaster/crew member and linked with the vessel's ECO-ID. The boatmaster will then automatically receive an email with further instructions.

For any new boatmasters, their email address will need to be added by the ECO-account holder. When boatmasters leave, their access needs to be revoked. If a vessel-specific smart phone is to be used, then only an email address needs to be added. Here too the access data are sent via the system to the previously entered email address.

Boatmasters need to do the following:

1. **Install app:** The app needs to be downloaded from the Google or Apple App Store, and installed.
2. **Create account:** The boatmaster is automatically invited by email to create an account when an ECO-account holder assigns this boatmaster to a vessel for the first time. Alternatively, he can also create an account in advance without being assigned to a vessel.

COMMENT: If the boatmaster has already installed the app and has an account, and receives access to a different ECO-ID, both the above-mentioned steps are redundant. In this case, the boatmaster automatically receives a notification that he has been given access to a new ECO-ID.

B) Initially I want to begin with a printed ECO-ID

ECO account holders need to do the following:

1. **1. Print out ECO-ID:** The ECO-account holder can use the web app to generate printable ECO-IDs in the form of a QR code. This code can then be printed in any form.
2. **2. Give the printed ECO-ID to boatmasters or leave it aboard the vessel.**

CAUTION: The printed ECO-ID is only valid for 6 months. Once the 6 months have expired, it can be regenerated using the web app and printed out. Printed QR codes can also be revoked at any time by the ECO-account holder.

C) For bunkering stations' operators and bunkering stations' personnel

The bunkering stations' operator shall be required to do the following:

1. **Add bunkering stations:** The bunkering stations' operator shall register each individual bunkering station in the system so that the data can be correctly recorded.
2. **Register bunkering personnel in the system:** The bunkering stations' operator will arrange for bunkering personnel to be given access to the app for smartphones/tablets or PCs/laptops. To be able to send bunkering personnel the access data required to use the app, an email address and contact details must be entered for each bunkering station or for each authorised person. The SPE-CDNI 3.0 well then automatically send an email containing further instructions to the bunkering stations or the authorised persons.

   Any new bunkering personnel will need their email address to be added by the management. The access rights of any departing bunkering personnel will need to be revoked. If the same device is to be used at a bunkering facility for registering the disposal fee (namely *not* specific to an individual) only a single email address need be added. Here too the access data are sent via the system to the previously entered email address.

The personnel responsible for recording data at the bunkering facility shall be required to do the following:

1. **1. Install app:** The app needs to be downloaded from the Google or Apple App Store and installed. Alternatively, the web application can also be used. This requires an accepted browser and an Internet connection.
2. **2. Create account:** Bunkering personnel are automatically invited by email to create an account when a person is first assigned to this bunkering facility. Alternatively, he can also create an account in advance without being assigned to a bunkering station.

COMMENT: If the bunkering personnel member has already installed the app and has an account, and receives access to a different bunkering facility, both the above-mentioned steps are redundant. In this case, the bunkering personnel member automatically receives a notification that he has been given access to a new bunkering stations.

4. Tutorials

The use of the app is demonstrated in videos (without sound):

- How to give boatmasters access to an ECO-ID
- How to print an ECO-ID
- How to carry out the transaction when using the app online
- How to carry out a transaction when using the app offline
- How to carry out a transaction with a printed out ECO-ID

5. Frequently asked questions regarding the SPE-CDNI 3.0

5.1 What technical requirements must I comply with to be able to use the application?

The application is supported by the following devices and software specifications:

Internet-capable devices, namely personal computers, laptops, tablets or mobile phones can open the new.spe-cdni.org website **by means of an Internet browser (web app)**. The following browsers are supported: Chrome, Firefox, Edge and Opera. The last and last but one version of each browser respectively is supported.

A **mobile app** can also be used for tablets or mobile phones with Internet access, that means no Internet browser is required. The app can instead be downloaded from the relevant store (App Store or Play Store).

For iOS (Apple) versions 13.4 or higher will be supported at go-live.

For Android (Google) versions 6.0 or higher will be supported at go-live.

5.2 What are the processes under the new system when bunkering?

Here we refer specifically to the process diagrams (graphic 1, graphic 2, graphic 3), which set out the three situations most commonly encountered at the bunkering stations. Each column describes the action of the person concerned or the central system. The order of the actions is indicated by the arrows.

App/Online

Diagram 1 shows how the transaction works when the boatmaster uses the SPE-CDNI app on a smartphone or tablet while connected to the internet.

The bunkering station also uses the SPE-CDNI app on a smartphone or tablet while connected to the internet.

The boatmaster must have an ECO-account, have installed the app and be logged in. The fuel facility user must also be registered in the system, have the app installed and be logged in.

1. The boatmaster opens the app and selects the ECO-ID of the vessel to be bunkered. The fuel facility user opens the app and initiates a new transaction.
2. The boatmaster shows the ECO-ID which is then scanned by the fuel facility user The system checks the validity of the ECO-ID.
3. The fuel facility user records the quantity bunkered and confirms that the information displayed (vessel name, ENI, quantity in litres and amount in Euros) is correct by tapping a button in the app.
4. The boatmaster confirms that the information displayed (vessel name, ENI, quantity in litres and amount in Euros) is correct by tapping a button in the app. This completes the transaction.
5. The system records the transaction centrally. The boatmaster and the fuel facility user receive confirmation that the transaction was successful.

App/Offline

Diagram 2 shows how the transaction works when the boatmaster uses the SPE-CDNI app on a smartphone or tablet without an internet connection. The bunkering station also uses the SPE-CDNI app on a smartphone or tablet. The bunkering station is connected to the internet.

The boatmaster must have an ECO-account, have installed the app and be logged in. The fuel facility user must also be registered in the system, have installed the app and be logged in.

1. The boatmaster opens the app and selects the ECO-ID of the vessel to be bunkered. The fuel facility user opens the app and initiates a new transaction.
2. The boatmaster shows the ECO-ID which is then scanned by the fuel facility user. The system checks the validity of the ECO-ID.
3. The fuel facility user records the quantity bunkered and confirms that the information displayed (vessel name, ENI, quantity in litres and amount in Euros) is correct by tapping a button in the app.
4. The system generates a temporary QR code in the app of the fuel facility user, containing the vessel name, ENI, quantity in litres and the amount in Euros.
5. The fuel facility operator shows this temporary QR code to the boatmaster, who then scans it.
6. The boatmaster confirms that the volume bunkered and the corresponding disposal fee are correct by tapping a button in the app.
7. The system generates a temporary QR code in the boatmaster's app.
8. The boatmaster shows this temporary QR code to the fuel facility user, who then scans it. This completes the transaction.
9. The system records the transaction centrally and also locally on the smartphones of the boatmaster and the fuel facility user. The boatmaster and the fuel facility user receive confirmation that the transaction was successful. The transaction data is recorded centrally as soon as the users reconnect to the internet.

Printed QR code

Diagram 3 shows how the transaction works when the boatmaster uses a printed ECO-ID. The bunkering station uses the app on a smartphone or tablet. The bunkering station has an internet connection.

The boatmaster must have an ECO-account and have printed out a copy of the ECO-ID. The fuel facility user must also be registered in the system, have the app installed and be logged in.

1. The fuel facility user opens the app, initiates a new transaction and selects the correct bunkering station.
2. The boatmaster presents the ECO-ID to the fuel facility user, who then scans it. The system recognises that the ECO-ID has been printed out and checks the validity of the ECO-ID.
3. The fuel facility user records the quantity bunkered and confirms that the information displayed (vessel name, ENI, quantity in litres and amount in Euros) is correct by tapping a button in the app.
4. The fuel facility user shows the screen to the boatmaster or reads out loud the data requested. The boatmaster checks that the information is correct.
5. The boatmaster confirms that the information is correct by presenting the printed ECO-ID again.
6. The fuel facility user scans the ECO-ID. This completes the transaction.

The transaction information is recorded centrally. The fuel facility user receives confirmation that the transaction was successful. The boatmaster can see this information on their computer.

Step-by-step explanations are available in the tutorials.

5.3 Do I need to be permanently online to use the app?

No. The benefit of using the app online is that it is easier to conduct the transaction and receipts are available directly online. But it is not mandatory.

5.4 What happens if my device is off-line?

Use of the app off-line has several consequences. These can best be seen from the process diagrams for the various scenarios. In summary, off-line use means that the entry of the amount of fuel bunkered does not automatically appear on the boatmaster's device. To be able to verify the inputted quantity as well as the vessel/the ECO-ID notwithstanding that, the boatmaster needs to scan a QR code generated by the fuel facility user's device. In addition, this ensures that the boatmaster also has access to receipts if there is no guaranteed access to the server. The receipt is uploaded as soon as the advice is back online. That means that authorised boatmasters and the ECO-account holder who were not directly involved in the transaction have access to the receipt as well.

5.5 What alternatives are there to the app?

As an alternative to the app, the boatmaster can also use a print out of the ECO-ID, which closely resembles the old ECO-card in the way it operates. This can either be distributed to boatmasters or held aboard a vessel. But the disadvantage is that the receipts are not immediately locally available, as the fuel facilities can no longer print them out. The receipts are however stored in the system and can be retrieved via smartphone, tablet, PC or laptop.

5.6 Why was the ECO-card replaced by the SPE-CDNI app?

The digitalisation of the inland navigation sector is an aspect that ought to command particular attention. The Mannheim Declaration, adopted by the Central Commission for the Navigation of the Rhine (CCNR), emphasises that digitalisation contributes to the competitiveness, safety, and sustainability of the inland navigation sector. The European Commission (EC) is also pushing for greater digitalisation in its action plan for the inland navigation sector, NAIADES III. The innovations in the SPE-CDNI 3.0 system further this aim and support both the CCNR's and EC's objectives.

The new system confers numerous benefits:

- **Simpler payment**: Both the boatmaster and the bunkering station employee can remotely inspect and confirm important information, such as the vessel's name, fuel quantity and the associated disposal fee on their respective devices.
- **User-friendly system**: The app can be used both in online and off-line mode. In off-line mode, the transactions are stored and only sent to the central system once the device's Internet access has been restored.
- **All documents are available digitally**: The boatmaster can view all his disposal fee payment receipts on his device.
- **Easy account and information management**: In the event of any changes, it is simplicity itself to use the app to add authorised companies and individuals to the ECO account or remove them from it.
- **Better data availability**: The new app makes for more accurate statistics as it is less prone to error and makes it easier to correct errors. In the longer term this enables companies to benefit from better information about their vessel and to view this data easily using the app.

5.7 Where do I get help if the SPE-CDNI app does not work?

If you have any questions regarding the SPE-CDNI app, you can contact your national institution.

5.8 Definitions regarding the SPE-CDNI 3.0

Vessel operator: the natural or legal person who bears the current expenditure relating to the operation of the vessel, in particular the purchase of the fuel used, alternatively the vessel owner.

Boatmaster: hereafter, boatmaster means all crew members authorised to take on fuel.

ECO-ID: the ECO-ID is a unique identification number linked with a vessel and an associated ECO-account via the ECO-account holder. The ECO-ID enables the boatmaster to to be given authorised access to use the app. The ECO-ID is displayed as a QR code in the mobile app or in printed form.

Mobile app: the mobile app is the app for the smart phone or tablet. It can be used to confirm the recorded data when bunkering so that the transaction can be processed. The mobile app can also be used to view receipts.

Web app: web app is the name for accessing the program using standard browsers such as Chrome, Firefox, Edge and Opera. The web app features an administrative section in which the ECO-account holder can administer his account (incl. receipts), vessels and access. When a boatmaster logs into the web app, he can display the ECO-ID and, as with the mobile app or printed ECO-ID, confirm the bunkered amount. The boatmaster can also use the web app to view receipts.

Bunkering personnel: this means all individuals at a bunkering facility who are responsible for collecting the billing data for the disposal fee.

Bunkering stations' operator: the company operating one or more bunkering stations.

Bunkering station: an installation at which craft take on gasoil or other fuels. This includes both fixed installations ashore as well as bunker trucks and bunker vessels.

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