



Responsible Care

(Responsible management of chemicals and waste)

~ Residue problem and the future ~

2023.9.28

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What are SDGs? (Sustainable Development Goals)

At the United Nations Summit in 2015, the "2030 Agenda for Sustainable Development Goals" was agreed upon by all member states. This is a world-wide objective that aims to realize a sustainable society that will leave no one behind. It consists of 17 main goals with 169 separate targets.





SUSTAINABLE DEVELOPMENT GOALS

The goals apply to all countries that are members of the UN.

However, such a major endeavour cannot be undertaken by governments and ministries alone.

Industry, local authorities, educational institutions, various other organizations and individual people are sharing the responsibility for meeting the targets and playing their part in the struggle from their respective positions. JDRA is also playing an important role in contributing to the success of the initiative.

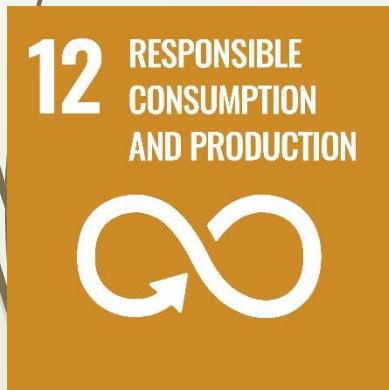
Faced with serious global environmental problems, the Japanese reconditioned drum industry is committed to the concept of the circular sustainable economy.

SDGs: Priority Items

The Japan Drum Reconditioners' Association has two priorities.



“CO2 reduction”



“Responsible management of chemicals and waste”

Empty drum definition

JIS Z1641 Standard:

“Requirements for steel drum reprocessing”

According to this document, the amount of residue in an empty drum is about 3 litres in practice, considering the actual trading situation and environmental impact in Japan.

The document also explains that the waste generator does not measure the amount of residue in each individual bottle, since it is not practical to measure this at the time of collection, and that it is therefore essential **to leave as little residue as possible** in each drum.

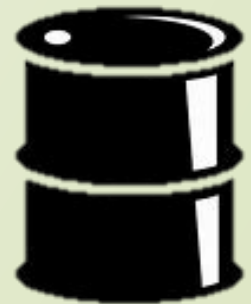


In Japan, empty drums are Exempted Objects

The official expression is “Industrial waste or general waste intended exclusively for recycling”

In Japan, drums are considered to be industrial waste, but they are considered to be exempt from some requirements as they are waste materials whose main purpose is recycling.

In order to undertake the treatment of ordinary industrial waste, a licence is normally required.



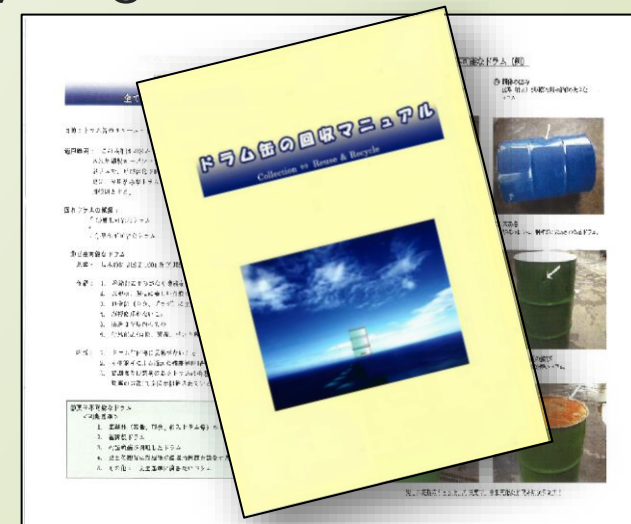
However, drums are allowed to be handled without a permit.

Definition of 'Empty Drum' - According to the Drum Collection Manual

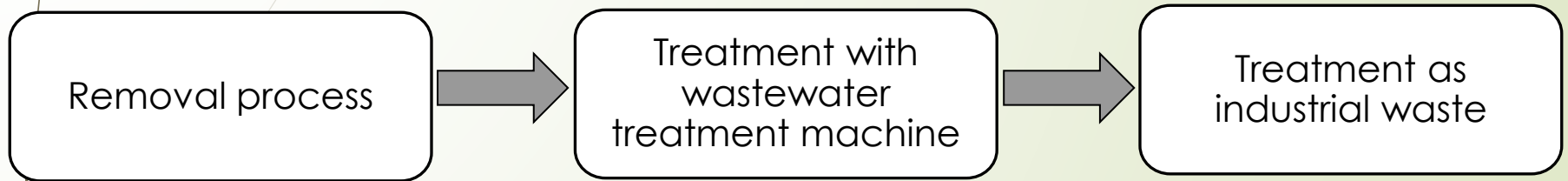
JDRA is implementing the recommendations of the "Drum Collection Manual" in its actual operations, with the aim of facilitating the establishment of a system for reusing and recycling drums.

The amount of residue from a used empty drum should be less than 0.5% of the capacity, which is **less than 1 litre** per drum.

This is stricter than the JIS Z1641 Standard: "Requirements for steel drum reprocessing".



How to dispose of residual liquids and solids in drums



Manifests regarding industrial waste treatment are issued to industrial waste companies and the disposal is outsourced.

(A 'manifest' is a management document used to confirm whether industrial waste outsourced for treatment has been properly disposed of according to the terms of the contract)

During Japan's economic boom, the production and consumption of goods increased rapidly. Along with this, improper disposal methods such as illegal dumping were rampant and became a serious social and environmental problem.

To this end, the "Industrial Waste Management Manifest System" was introduced.

It became compulsory in 1993.

How to dispose of residual liquids and solids in the drum contents (Traceability via manifest)

The manifest is issued at the same time as the industrial waste is handed over to the processing company.

The details, such as the quantity of waste and the names of the transporter and disposal company are filled in. The system allows for traceability as the industrial waste is moved along with the outsourced industrial waste until it is disposed of.

産業廃棄物管理票 (マニフェスト) A 票

交付年月日: 年 月 日 交付番号: 整理番号: 交付担当者: 氏名 (印)

事(排出者) 氏名又は名称: 事務所: 電話番号: 事(排出事業者) 名称: 所在地: 電話番号:

産業廃棄物

種類(普通の産業廃棄物)	種類(特別管理産業廃棄物)	数量(及び単位)	荷姿
<input type="checkbox"/> 0100 燃えがら	<input type="checkbox"/> 1200 金属くず	<input type="checkbox"/> 7000 引火性廃油	<input type="checkbox"/> 7424 燃えがら(有害)
<input type="checkbox"/> 0200 汚泥	<input type="checkbox"/> 1300 びんくず・磁器くず	<input type="checkbox"/> 7010 引火性廃油(有害)	<input type="checkbox"/> 7425 廃油(有害)
<input type="checkbox"/> 0300 廃油	<input type="checkbox"/> 1400 紙くず	<input type="checkbox"/> 7100 硫酸	<input type="checkbox"/> 7426 汚泥(有害)
<input type="checkbox"/> 0400 廃酸	<input type="checkbox"/> 1500 がれき類	<input type="checkbox"/> 7110 塩酸(有害)	<input type="checkbox"/> 7427 廃酸(有害)
<input type="checkbox"/> 0500 廃アルカリ	<input type="checkbox"/> 1600 家畜のふん尿	<input type="checkbox"/> 7200 塩アルカリ	<input type="checkbox"/> 7428 廃アルカリ(有害)
<input type="checkbox"/> 0600 廃プラスチック類	<input type="checkbox"/> 1700 家畜の死体	<input type="checkbox"/> 7210 塩アルカリ(有害)	<input type="checkbox"/> 7429 はいじん(有害)
<input type="checkbox"/> 0700 紙くず	<input type="checkbox"/> 1800 はいじん	<input type="checkbox"/> 7300 毒急性廃棄物	<input type="checkbox"/> 7430 13号廃棄物(有害)
<input type="checkbox"/> 0800 木くず	<input type="checkbox"/> 1900 13号廃棄物	<input type="checkbox"/> 7410 PCB等	<input type="checkbox"/> 7440 廃水銀等
<input type="checkbox"/> 0900 繊維くず	<input type="checkbox"/> 4000 動物系固形不要物	<input type="checkbox"/> 7421 廃石棉等	
<input type="checkbox"/> 1000 動植物性残さ	<input type="checkbox"/> 1100 コムくず	<input type="checkbox"/> 7422 指定下水汚泥	
		<input type="checkbox"/> 7423 鉱さい(有害)	

中間処理産業廃棄物 管理票交付者(処分委託者)の氏名又は名称及び管理票の交付番号(登録番号)
 経過記載のとおり
最終処分場所 名称/所在地/電話番号
 委託契約書記載のとおり
 当欄記載のとおり

運搬受託者 氏名又は名称: 事務所: 電話番号: 運搬先の事業者 名称: 所在地: 電話番号:

処分受託者 氏名又は名称: 事務所: 電話番号: 積又は替え 名称: 所在地: 電話番号:

運搬の受託 (受託者の氏名又は名称) (運搬担当者の氏名) 受領印 運搬終了年月日 年 月 日 有価物数量 数量(及び単位)

処分の受託 (受託者の氏名又は名称) (処分担当者の氏名) 受領印 処分終了年月日 年 月 日 最終処分 最終処分 年 月 日

最終処分を行った場所 名称/所在地/電話番号 (委託契約書記載の場所にあつては委託契約書記載の番号)

照合確認 B2票 年 月 日 D票 年 月 日 E票 年 月 日

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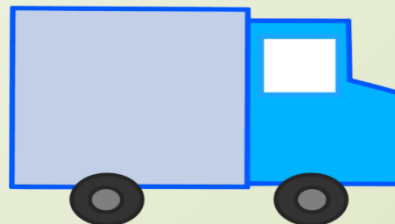
At JDRA,

we not only carefully remove and treat the residual liquids and solids generated during the manufacturing process, but also provide information on their disposal and treatment to enable traceability.

Emission
business
operator



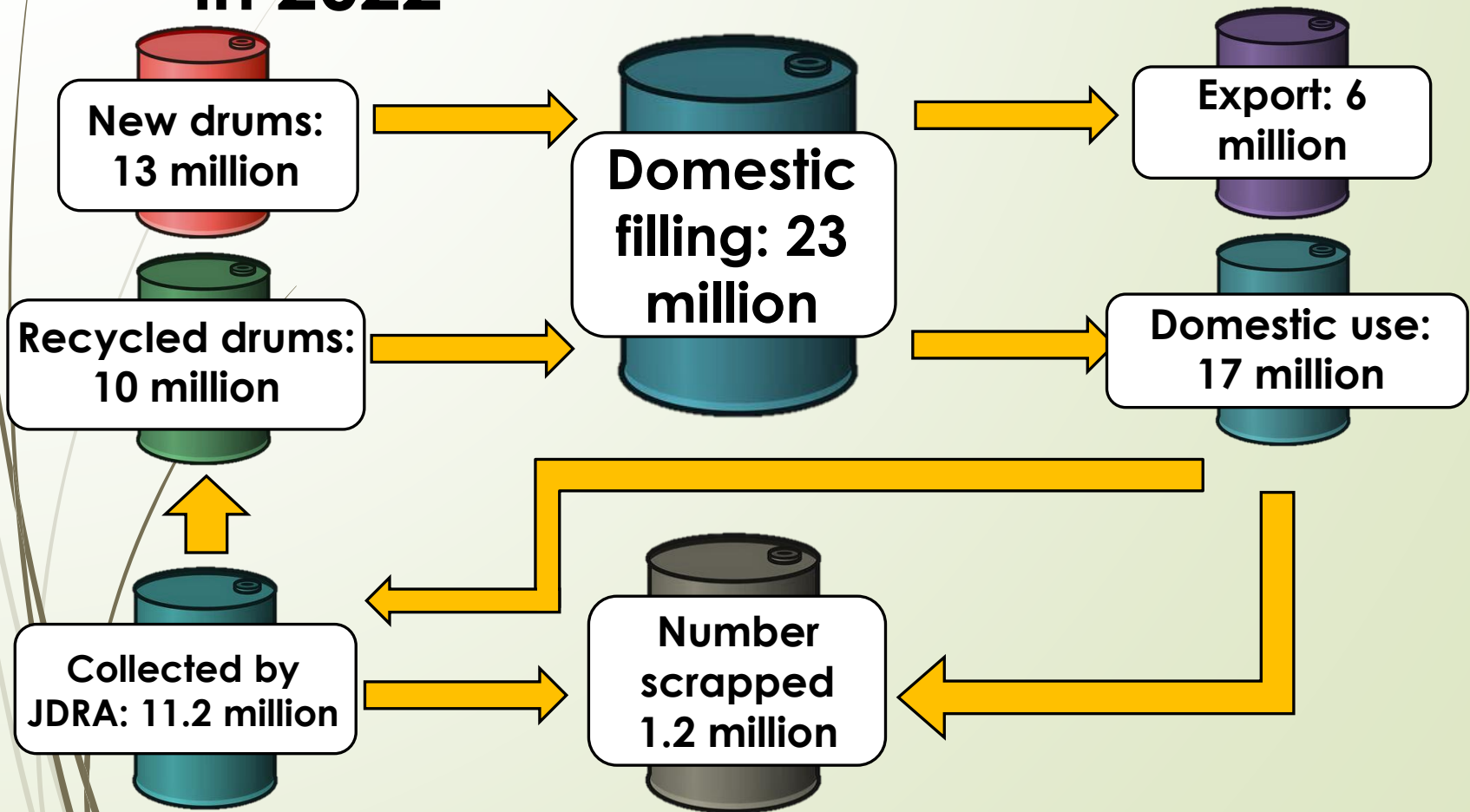
Transport
contractor



Disposal
contractor



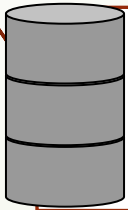
Actual situation of scrapping process in 2022



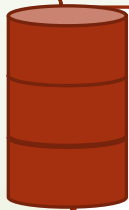
Total number of drums scrapped: 5.8 million

The problems with direct-scrap

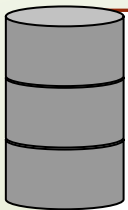
One of the problems with direct-scrap processing of drums is that it increases the amount of scrap material in the recycling industry.



The following problem often happens during processing. Chemicals, fuel and other harmful substances that remain inside the drum may leak out.



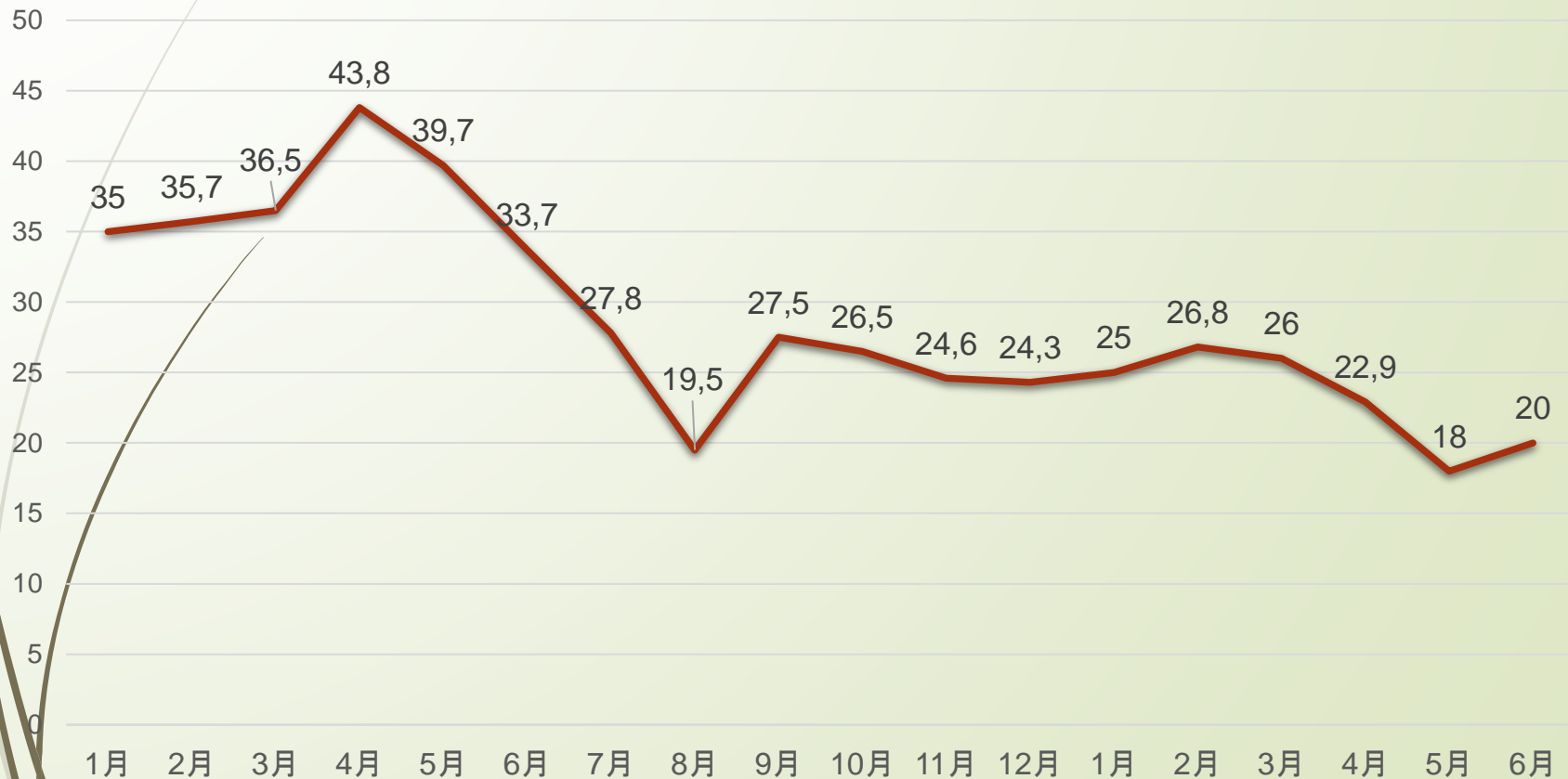
These substances can have a negative impact on health and the environment and it is necessary to dispose of them appropriately.



If the 5.8 million drums that are directly scrapped every year can be collected and reused instead, CO2 emissions will be significantly reduced.

Scrap price trends

January 2022 - June 2023



Kg / JPY

Responsible Care

(responsible management of chemical substances and waste)

Businesses are required to take responsibility for this responsible care. To protect the environment, and ensure safety and health, and to eliminate direct scrapping as much as possible, we remove residual liquid and residue from the inside of the drums.

What is Responsible Care?

It is a self-management activity that protects the environment as well as ensuring safety and health throughout the entire life cycle of chemical substances, from development, manufacturing, distribution and use to final consumption and disposal.

Responsible Care began in 1985 when the Canadian Chemical Producers Council advocated a range of measures including the voluntary management of chemical substances.

It was promoted as part of Agenda 21 and adopted at the 1992 United Nations Conference on Environment and Development.

In Japan, the Japan Chemical Industry Association established the Japan Responsible Care Council in 1995 and started promoting its activities.

Responsible Care (responsible management of chemical substances and waste) and drum reconditioning business)

◆ The drum reconditioning industry collects, recycles, and reuses used drums, thereby promoting waste reduction and more effective use of resources.

These efforts align with the principles of Responsible Care in reducing the environmental impact and promoting sustainable resource management.

◇ The drum reconditioning industry and the policy of Responsible Care are important elements for realizing a sustainable society.

Responsible Care practices can be expected to save resources and improve our quality of life.

◆ The reuse and recycling of drums is associated with the principle of environmental protection in terms of reducing environmental damage.

Using recycled drums consumes less energy than manufacturing new drums and has the effect of reducing waste generation.

◇ **Overall, it can be said that the drum reconditioning industry is positioned as a sustainable initiative that promotes the values of Responsible Care and plays a role within the chemical industry in realizing operations that are both safer and more environmentally friendly.**

JDRA member companies are promoting the reuse of drums every day, enhancing collection systems and improving recycling technology. It is working.

Responsible
Care

Improvement
of Reprocessing
Technology



Enhancemen
t of Collection
System

Managemen
t of CO2
Emissions

JDRA Responsible Care promotional video

もったいない！だからもう1回～ドラム缶リユースで地球環境保全とコスト削減～日本ドラム缶更生工業会

**もったいない！
だからもう1回**

～ドラム缶リユースで地球環境保全とコスト削減～



日本ドラム缶更生工業会



Thank you for your attention.

2023.9.28

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