

Summary of Changes for Lithium ion or Lithium polymer Cells and Batteries

Developed by NCA, December,2014

PI 965, Lithium ion or Lithium polymer Cells and Batteries (UN3480)

		Cells or Batteries as Class 9 Dangerous Goods		Excepted Cells or Batteries
		Section IA	Section IB	Section II
Types of cells or batteries		Types of cells or batteries 1) Cells more than 20Wh. 2) Batteries more than 100Wh. 3) Types of cells or batteries subject to Section IB but exceed the limitation of Section IB.	Types of cells or batteries 1) Cells or batteries with a Wh rating not more than 2.7Wh. 2) Cells with a Wh rating not more than 20Wh. 3) Batteries with a Wh rating not more than 100Wh.	Types of cell or battery 1) Cells or batteries with a Wh rating not more than 2.7Wh. 2) Cells with a Wh rating not more than 20Wh. 3) Batteries with a Wh rating not more than 100Wh.
Limitations	Number of cells or batteries per package.	N/A	If the numbers of cells or batteries in a package exceed the limitation for Section II, those can be transported under the provision of Section IB (Class 9 Dangerous Goods).	Above 1), 2) and 3) 1) No Limit 2) 8 Cells. 3) 2 Batteries. Note: Different type of cells or batteries must not be packed together in one outer packaging.
	Net Quantity (Mass) of cells or batteries per package	PAX aircraft: 5kg CAO aircraft: 35kg	Net quantity of Cells and batteries per package must not exceed 10kg* . (please refer to *)	Above 1), 2) and 3) 1) 2.5kg per package 2) N/A 3) N/A
UN Test		Cells and batteries must pass the 38.3 UN Test.	Cells and batteries must pass the 38.3 UN Test.	Cells and batteries must pass the 38.3 UN Test.
Shipper's Declaration for Dangerous Goods (DGD)		Yes, required.	Yes, required	Not required.
AWB Indication		"Dangerous Goods as per attached Shipper's Declaration" and "Cargo Aircraft Only" if applicable.	"Dangerous Goods as per attached Shipper's Declaration" and "Cargo Aircraft Only" if applicable.	"Lithium ion Batteries in compliance with Section II of PI 965".
Other Document		N/A	<ul style="list-style-type: none"> ● The package contains Lithium ion cells or batteries. ● The package must be handled with care and that a flammability hazard exists if the package is damaged. ● Special procedure must be followed in the event the package is damaged, to include inspection and repacking if necessary. ● A telephone number for additional information. ** (please refer to **)	<ul style="list-style-type: none"> ● The package contains Lithium ion cells or batteries. ● The package must be handled with care and that a flammability hazard exists if the package is damaged. ● Special procedure must be followed in the event the package is damaged, to include inspection and repacking if necessary. ● A telephone number for additional information.

To be continued.

	Section IA	Section IB	Section II
UN Specification Packaging	Yes, UN specification packagings meeting PG II performance standard, must be used. However, lithium ion batteries with a mass of 12kg or greater and having a strong, impact-resistant outer casing, or assemblies of such batteries, may be transported when packed in strong outer packagings under the approval of the state of origin. A copy of approval must accompany.	No, UN specification packaging is not required. But the packaging must be test for 1.2m drop test.	No But the packaging must be test for 1.2m drop test.
Class 9 Hazard Label	Yes	Yes	Not required.
Lithium Battery Handling Label	No.	Yes	Yes, must be affixed on the Package.
NOTOC (requirement for Airlines)	Yes, required.	Yes, required.	Not required.
All other requirements in DGR	Must be applied.	Must be applied.	Not applicable. (must meet requirements in PI965 and applicable Special Provisions must be observed.)
Training Requirement	Yes, required including shippers	Yes, required including shippers.	Necessary instruction must be given to the handling personnel but training is not a mandatory.
Acceptance Check by using check list (requirement for Airlines)	Yes, a full acceptance check by using normal check list is required.	Yes, a full acceptance check by using normal check list is required.	Not Required.
Shipper Built ULD	Must not be included in BUP.	Must not be included in BUP.	Can be included in BUP

Section IB

*** The limitation of gross weight for section IB is changed to Net quantity.**

**** Additional requirements for other document** can be indicated in Additional Handling Information of the Shipper's Declaration or on the AWB or on the alternative transport document.

There are samples of DGD. please refer to attachments.

Section IA, other changes and additional item.

1. Another type of UN specification packaging, 4N (other metal, other than steel or aluminium) can be used as Outer Packaging.
2. There are some changes in Additional Requirements – Section IA, please see IATA DGR 54th edition.

PI 966 Lithium ion or lithium polymer cells and batteries packed with equipment (UN3481)

Section I, Change and additional requirements.

1. Another type of UN specification packaging, 4N (other metal, other than steel or aluminium) can be used as Outer Packaging.
2. **The number of cells or batteries in each package must not exceed the appropriate number for the equipment's operation, plus two spares.**
3. Table 966-I will be modified as follows;

UN number	Net quantity per package Passenger aircraft	Net quantity per package Cargo Aircraft Only
UN3481, Lithium ion batteries packed with equipment	5kg	35kg

Section II, change and additional requirements

1. AWB requirement will be modified as;

The words "Lithium ion batteries in compliance with Section II of PI 966" must be shown on the AWB.

2. The limitation of Section II batteries will be added as follows;

Table 966-II

	Passenger aircraft	Cargo Aircraft Only
Net quantity of Lithium ion cells or batteries per package	5kg	5kg

PI 967 Lithium ion or lithium polymer cells and batteries contained in equipment (UN3481)

Section I, Table 967-I will be modified as follows.

Table 967-I

UN number	Net quantity per package Passenger aircraft	Net quantity per package Cargo Aircraft Only
UN3481, Lithium ion batteries contained in equipment.	5kg	35kg

Section II, change and additional requirements

1. AWB requirement will be modified as;

The words "Lithium ion batteries in compliance with Section II of PI 967" must be shown on the AWB.

2. The limitation of Section II batteries will be added as follows;

Table 967-II

	Passenger aircraft	Cargo Aircraft Only
Net quantity of Lithium ion cells or batteries per package	5kg	5kg

Other changes and additional items.

General requirements in PI 965, 966 and 967, there are some change and additional requirements as follows.

- Cells and batteries must be manufactured under a quality management program as described in 3.9.2.6(e) of 54th edition of DGR.
- Each cell and battery is of the type proven to meet the requirements of each test in the UN Manual of Tests and Criteria, Part III, subsection 38.3. However, batteries and cells manufactured before 1 January 2014 conforming to a design type tested according to the requirements of the fifth revised edition of the UN Manual of Tests and Criteria, Part III, subsection 38.3 may continue to be transported.

Note: NCA is not in a position to take any responsibility for the accuracy of the table above.

The IATA Dangerous Goods Regulations must be observed.