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## **Group principles on Waste and Water management**

# Q.1 What are the Group standards and documents related to waste and water management?

The main Group requirements are presented in the following documents:

- Environmental Policy
- <u>Cement Environmental Directive</u>
- Cement Industrial Framework, section Environment and Sustainability (v.2, 2020)
- Environmental reporting requirements (Oct. 2020)
- Water Directive

In addition, waste requirements are also stipulated in the AFR Process Safety Framework. To consolidate all the requirements, we are working on two Group HSE standards on Waste and Water management; these are in the internal review phase and will be released early in Q3 2021.

#### Q.2 Do you have reduction programs on internally produced waste ?

Internally generated waste reduction is our priority, and this is a requirement in the Group's Environmental Policy, the Cement Environmental Directive, the Environment and Sustainability section of the Cement Industrial Framework, with focus on reuse, recovery and recycling of any produced waste.



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#### Q.3 Which are the principles on water management?

Water is an important resource for our business and for the communities around our plants, and Holcim is a signatory of the WBCSD WASH Pledge.

The focus on improving our performance in minimizing freshwater withdrawal, its efficient use, and the engagement of stakeholders is key for the way water is managed at Group sites (ref. Water Directive). We have thus set 2030 targets to reduce specific freshwater withdrawal in our Cement, Aggregates and Ready-Mix Concrete segments. These targets are specified on the page dedicated to water on our website.

#### Q.4 How do you handle waste or water related incidents?

All incidents related to, or potentially affecting waste or water management, have to be recorded in the Group reporting system (iCare). If incidents fall into the "Critical Incidents" criteria, operations have to notify the Group within 24 hours. Incidents are investigated using the Root Causes Analysis methodology and actions are followed up until full closure of the incident.

### Main requirements on Waste management

#### Q.5 Why is waste management important to Holcim?

At Holcim our vision to enable a circular built economy starts with preservation of natural resources by substituting fossil fuels and raw materials with waste or by-products. Rethinking our production processes has given us the opportunity to contribute to solving society's waste problem through waste reuse and recycling. This includes how we manage internally generated waste.

We reuse, recover and/or recycle waste materials in our own production processes where feasible, minimize the generation of any hazardous and other waste, and dispose of waste using safe and responsible methods. We actively seek to prevent, reduce, recycle, co-process, and only at a last stage, landfill the waste we produce in our operations.

In the last 5 years we have:

- reduced the total amount of internal waste generated by 74%
- improved recycling, reuse and recovery, eventually reducing the amount of internally generated waste disposed by 81%





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	2016	2020	Reduction
Internal waste recycled or recovered (million tons)	0.48	0.26	46%
Internal waste disposed (million tons)	1.9	0.36	81%
Total internal waste handled (million tons)	2.38	0.62	74%

Excludes Captive Power Plants

Sources:

Sustainability Report 2016 (page 41)

Sustainability Performance Report 2019 (page 9)

#### Q.6 What are the requirements applicable to your operations?

From the Cement Environmental Directive, the Environment and Sustainability section of the Cement Industrial Framework, the AFR Process Safety Framework, the main requirements are:

- full compliance to Holcim Directives and Standards and any applicable regulatory requirements (including federal, state, and local laws, permits and authorizations), following the principle "the most stringent applies",
- define site programs based on the waste hierarchy,
- adopt a site specific waste management plan.

#### Q.7 How do you engage employees on the waste management programs?

In the Cement Industrial Framework, Environment and Sustainability section, we require the plants to establish programs to train and engage employees on recycling, reuse and avoid waste production.

#### Q.8 **Do you consider waste traceability?**

Any waste shipment sent off-site for treatment or final disposal must be traceable with documents and records available for at least five years (or longer in case of more stringent regulatory requirements).



#### Q.9 What hazardous waste procedures do you follow?

In addition to the standard waste management requirements, our plants have to consider hazardous waste within the scope of Dangerous Goods Management, in order to proactively address any issues related to:

- identification of environmental impacts
- pollution prevention
- inspection and maintenance programs (e.g. on containers, storage tanks, containment systems)
- identification and labeling of all dangerous goods in the plants and during transportation
- firefighting and emergency preparedness

#### Q.10 Do you have "blacklisted" waste / materials types?

Within the waste management plan for internal waste management we require processes to eliminate Asbestos and PCBs containing materials from our operations. The process is phased in the following steps:

- 1. Identification of Asbestos and PCBs containing materials, with establishment of an inventory, including raw materials mined for production,
- 2. Definition of an action plan to phase out such materials and execution,
- 3. Obtain "Asbestos and PCBs containing materials free" plant status.

With regard to waste handled for use as alternative fuels and raw materials there is a list of banned waste types we will not process. These are stipulated in the <u>Holcim / GIZ guidelines on</u> <u>pre - and co - processing</u> (page 32) This includes, amongst others:

- radioactive waste
- asbestos containing waste
- explosives and ammunition
- self-reactive / thermally unstable compounds
- waste electrical and electronic equipment
- anatomical, infectious and health care waste



## Main requirements on Water management

#### Q.11 What are the requirements applicable to your operations?

From the Water Directive, the Cement Environmental Directive, and the Environment and Sustainability section of the Cement Industrial Framework, the main requirements are

- full compliance to Holcim Directives and Standards and any applicable regulatory requirements (including federal, state, and local laws, permits, authorizations), following the principle "the most stringent applies",
- establishment of water management plans, including the definition of the operational water footprint, site specific assessment and continuous improvement on water management practices,
- proactive engagement with stakeholders.

#### Q.12 Do you operate treatment plants for used water?

In the Cement Industrial Framework, Environment and Sustainability section, we require the plants to treat its sanitary water and have a water recycling system, in order to reduce freshwater withdrawal and control the quantity and the quality of water at discharge points.

## **Programs' evaluation and governance**

#### Q.13 How do you measure progress on waste and water management?

During the annual reporting campaign for Sustainable Development (ref. the annual Sustainability Performance Reports) we measure each unit's progress through specific metrics, such as:

- internal waste recycled, recovered, disposed (separately for hazardous and non-hazardous waste),
- waste derived resources and alternative raw materials used in cement, concrete, and asphalt production,
- water withdrawal and harvested rainwater,
- quantity of water discharged or sent off site for treatment,
- quality of discharged water,



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- water treatment systems in place,
- leakages and water losses.

#### Q.14 How do you manage governance on waste and water programs?

Both in the Cement Environmental Directive and the Cement Industrial Framework we require the plants to perform internal audits to ensure the effectiveness of environmental management plans. As with any audit process this includes the identification of gaps, the definition of corrective actions and their prioritization, and the follow-up until closure of the actions.

