1 Nippon Valqua Industries, Ltd.

	Company thinking
☐ **Background and purpose for accounting**	● Having built on our management policy, we recognize that global environment protection is one of the most crucial themes shared by all human beings. We strive for environmental protection in every aspect of our business operations, seeking a balance between business growth and formation of sustainable society. ● We have worked for GHG emission reductions in terms of Scope 1 & 2 over years, while Scope 3 has remained untouched. ● Non-financial information (incl. environment) becomes more and more important for investors to make investment decisions. We've come to consider Scope 3 accounting can be a tool to cope with such changes, and that's why we launched accounting practice.
☐ **Utilization of accounting results**	● Making responses to environmental rating and evaluation schemes. ● Providing an outline of our accounting practice in the CSR reports. ● We will look at emission pattern for a period of time (several years) and then consider if the results can be used for developing actions as well as for verifying their effects.
☐ **Advantages of accounting**	● Emissions accounting in accordance with the "Basic Guidelines on Accounting for Greenhouse Gas Emissions throughout the Supply Chain" ensures high transparency in information disclosure, allowing us to prepare for responding to disclosure requests. ● Accounting results give us some indications to prioritize emission reduction actions.
☐ **Internal accounting organization**	● Environment Div. collects activity data from each department and conduct accounting. The data obtained include: data from the core corporate system (data on procurement, fixed assets, cost, etc); data from affiliated companies by using a uniform format; data on personnel affairs (number of employees, etc.).

	Company thinking
☐ **To reduce supply chain emissions**	● Within the boundary, the result clarifies "Purchased goods and services (Category 1)" accounts for 80% of total supply-chain emissions. However, in our business, raw materials are the key to ensure product performance and cannot be replaced instantly. Therefore, we will keep on our resource-saving actions, such as improving yield rate and reducing defective items, and continue to look at our emission patterns. ● As for Scope 2, the second largest source of our supply-chain emissions, we continue to work for GHG emission reductions as we have done until today.
☐ **Tasks to account for supply chain emissions**	● Accounting by using price-based emission factor can be affected by changes in amount of purchase. (Our company conducts price-based accounting for most categories.) ● For overseas data, we use domestic emission factors. However, because these are price-based factors, accuracy of accounting results is limited. ● Accounting based on emission factor is effective to assess overall conditions. However, we think other ways of accounting are needed in developing actions or verifying their effects. ● As for categories excluded from accounting this year, "End-of-life treatment of sold products (Category 12)" is expected to account for a large share of the total in the near future. Therefore, we need to establish an accounting method for this category promptly. ● Simplified accounting method should be considered for categories with small share of emissions.(roughly around 1% of the total)
☐ **Other comments (optional)**	● Our Scope 1 & 2 emissions are not so significant because of the size and contents of our business, with limited chance of reductions. This is why we launched Scope 3 accounting that paves a new direction to contribute to slow global warming. We will keep working for accounting and emission reductions as disclosing information and reducing emissions are a matter of the corporate responsibility.

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Category	Accounting methods	
	Activity data	**Emission factor**
Category 1: Purchased goods and services	• Purchased amount of materials, semi-products, products, and office supplies per item in a year	• Emission factor DB *1
Category 2: Capital goods	• Increase in capital investment in current term	• Emission factor DB *1
Category 3: Fuel- and energy-related activities	• Consumption of kerosene, diesel, Bunker A, municipal gas, natural gas, electricity and water	• Emission factor DB *1*2
Category 4: Upstream transportation and distribution	• Transportation cost in a year included as normal or special fares (by logistics company)	• Emission factor DB *1
Category 5: Waste generated in operations	• Weight of waste by type of industrial waste	• Emission factor DB *1
Category 6: Business travel	• Travel expense that the company owes by type of cost, based on account requests by employees	• Emission factor DB *1
Category 7: Employee commuting	• Number of employees excluding dispatched and part-time workers (Reference: "Income and expenditure survey: outline of sample design" (FY2013) for classification of municipality scale)	• Emission factor DB *1
Category 8: Upstream leased assets	• Not calculated (because it is estimated no more than 8t)	
Category 9: Downstream transportation and distribution	• Included in Category 4, as all cases are conducted under entrusted services.	
Category 10: Processing of sold products	• Not accounted this year	
Category 11: Use of sold products	• Electricity consumption of product over the life time x number of product sold in a year	• Representative value of CO_2 emission factor (0.00055t-CO2/kWh)

Nippon Valqua Industries, Ltd.

Category	Accounting methods	
	Activity data	Emission factor
Category 12: End-of-life treatment of sold products	● Not accounted this year	
Category 13: Leased assets (downstream)	● We calculated by multiplying user's Scope1,2 emissions by the ratio of our assets leased to the user divided by the user's total operated assets	
Category 14: Franchises	● Not included in the scope of calculations (there are no franchises)	
Category 15: Investments	● Not included in the scope of calculations (there are no relevant investments)	
Other	● Not included in the scope of calculations (because it is an option)	

Emission factor database
*1: Emission factor database for accounting greenhouse gas emissions throughout the supply chain (ver. 2.1)
*2: Basic database for the Carbon Footprint Communication Program (ver. 1.01)

Accounting result

Valqua group's supply chain CO2 emissions

- Category 13 Leased assets (downstream) 1%
- Category 4,9 Transportation and distribution (Upstream, Downstream) 1%
- Category 2 Capital goods 2%
- Category 11 Use of sold products 3%
- Category 3 Fuel- and energy-related activities 1%
- Other Category (5,6,7) 1%
- Scope1 2%
- Scope2 9%
- Category 1 Purchased goods and services 80%