Small-type medical waste incinerator NU100B
~ The outcomes of survey in Senegal ~

Kokusai Kogyo Co., Ltd.
Stella Environment Corporation

26th August 2019
### About Us

<table>
<thead>
<tr>
<th>Corporate Name</th>
<th>Stella Environment Corporation</th>
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<tbody>
<tr>
<td>Founded</td>
<td>June 2005</td>
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<td>* founded as a venture company in collaboration with Nagasaki University</td>
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<td>Location</td>
<td>Minato-ku Tokyo, Japan</td>
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<td>Nature of Business</td>
<td>1) Small-type Incinerator for Medical Waste</td>
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<td></td>
<td>* Manufacturing, installation and training</td>
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<td>2) Solar Photovoltaic System</td>
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<td>* Design, Supply and Installation with Mitsubishi Electric Asia Pte Ltd.</td>
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Creating smiles, Creating sustainability,
All for the next Generation
Supply Records

Incinerators
10 countries, 43 units

Solar systems
6 countries
Incinerators for Medical wastes

Case 1:
Democratic Republic of Congo, 2016

1 unit for Lubumbashi University Hospital
Incinerators for Medical wastes

Case 2:
Republic of Senegal, 2019

1 unit for Diourbel Hospital
Solar Streetlight System

Case 1:
Democratic Republic of Congo, 2016

563 units for the main road connecting the airport to downtown Kinshasa
Small-type Incinerator for Medical Waste

Capacity: Maximum 25kg/day (5kg/5times/day)
Dimensions: 760W × 760D × 4,700H mm
Weight: Approx. 1,000kg
Consumption: Approx. 5ℓ/h (Diesel)
Concept

Fuel
Run by firewood in case of insufficient diesel supply.

Power Supply
Solar power battery system

Special designed chimney hood
Operational in all weathers.

User friendly
Easy use and maintenance.
The burning system making use of radiant heat, which,

- Prevents the burner’s continuous functioning.
- Enables perfect combustion of syringes (plastics) to be turned into fuel.
Minimizing the occurrence of dust and black smoke with the special designed baffle plates, which prevents melted combustion products from gasifying at once.
“Survey on the Effectiveness of Small-type Incinerator for Healthcare Wastes in a semi-decentralized Treatment System”

Country: Senegal
Period; First Survey: April 2019, Second Survey: June 2019
Consultant: Kokusai Kogyo Co., Ltd.

The government had formulated a national strategy aiming to achieve Universal Health Coverage.

While, medical waste is not properly handled....
- Insufficient incinerators.
- Most of the existing incinerators not working.
- Treated by open burning, mixing up with municipal wastes.
Our Proposals

**Dedicate NU100B exclusively for Sharps waste treatment**
- Sharps Wastes are the most infectious and dangerous
- They cannot be treated by open burning

**Semi-decentralized treatment system**
- Install NU100B in optimum locations at Health Centers
- Collect sharps wastes from health posts and clinics and treat them collectively

**Establish a maintenance system**
- Collaboration with a national vocational school
- Technical transfer
- NU100B will be installed in December 2019. (Diourbel Hospital)
STOP Infection Accident
STOP Environmental Pollution
and
Creating smiles,
Creating sustainability,
All for the next Generation

Thank you very much!