BURNING CONTAMINATED WOODS FOR ELECTRICITY GENERATION?

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The Fukushima Coalition to Consider Radioactive Waste Incineration
Nakako Wada
FUKUSHIMA PREFECTURE'S FORESTS ARE CONTAMINATED

- The Ministry of the Environment will not carry out forest decontamination
- How do they plan to revitalize the forest industry?
- Environmental Restoration Study Group (September 2011 – March 2019) 20 times in total
  September 2012 “Tentative Arrangement on the Future of Forest Decontamination”
  Treatment of Waste from Forest Decontamination and Biomass Power Generation
- Utilizing biomass power generation using electricity from heat generated by incineration
  Consideration of the use of biomass from decontamination
 Sixth Environmental Restoration Study Meeting, Wednesday, August 29, 2012

木質バイオマス発電（木材等の種類と調達価格）

<table>
<thead>
<tr>
<th>調達区分</th>
<th>未利用木材</th>
<th>一般木材</th>
<th>廃棄物系バイオマス</th>
<th>リサイクル木材</th>
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<tr>
<td>該当する主な木質バイオマス</td>
<td>○間伐材※1 ○対象森林※2から伐採、産生される木材</td>
<td>○製材等残材 ○その他由来の証明が可能な木材</td>
<td>○廃棄物系のバイオマス</td>
<td>○建設資材廃棄物 ○その他の木質バイオマス</td>
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<tr>
<td>ガイドライン※3に準拠した分別管理・証明が行われたもの</td>
<td>ガイドライン※3に準拠した分別管理・証明が行われたもの</td>
<td>ガイドライン※3に準拠した分別管理・証明が行われていないもの</td>
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| IRR※4（税前） | 8% | 4% |
| 調達価格（税抜） | 32円/kWh | 24円/kWh | 17円/kWh | 13円/kWh |

※1：森林の健全な育成のため、うっ閉し立木間の競争が生じ始めた森林において、材積による伐採実施率が35%以下であり、かつ、伐採年度から起算して5年後において再びうっ閉しないことが確認されると認められる範囲内で行われる伐採により発生する木材。伐採によるものを含む。

※2：対象森林とは、①森林経営計画の対象森林、②保安林及び保安施設地区、③国有林野施業実施計画・公有林野等官行造林施業計画の対象森林のいずれかに該当する森林。

※3：林野庁：発電利用に供する木質バイオマスの証明のためのガイドライン（平成24年6月）

※4：internal rate of return、内部利子率、内部収益率 適正な利潤の指標として使用。
COLLABORATION WITH COMPANIES
There are no laws regulating the use of products from radioactive forest.

- **Valuables**: No laws and regulations / Voluntary industry standards
- **Personal Consumption**: No laws and regulations / The standard value for firewood and pellets, 40 becquerels per kilogram
- **Waste Material**: There are laws and regulations / Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials targeting the Waste from the nuclear accident
What is “Designated Waste (Waste Materials over 8,000 becquerels per kilogram)”?

Waste generated from a water supplier, a public sewerage manager, a basin sewerage manager, industrial water supply facilities, specified general waste disposal facilities or incineration facilities of specified industrial waste disposal facilities, and a manager of a rural community sewerage system, which does not meet the standards set forth in the relevant Ordinance of the Ministry of the Environment, based on the results of the survey by the management of the facility, and the Ministry of the Environment designate as waste contaminated with radioactive materials discharged by the accident.

In addition, even for wastes other than the above, as a result of a survey on the status of pollution from radioactive materials discharged by the accident with respect to waste that they possess, that does not meet the standards set forth in the relevant Ordinance of the Ministry of the Environment, may apply to the Minister of the Environment for the designation of the said waste.

(Sections 16-18 of the Act.)
MORE THAN 500,000 BECQUERELS ASH FROM HOUSEHOLD WOOD STOVES

October 2019, more than 500,000 becquerels from wood stove ashes in Iitate Village

It's not just designated waste, it should be stored in an interim storage facility.

No one at the town office, the national government, or TEPCO will take back the ashes, and TEPCO refuses to pay for substandard firewood purchases (200,000-300,000 yen per year).

Provided by Mr. Ito Nobuyoshi
WOOD CONTAMINATION
BIOMASS POWER GENERATION IN FUKUSHIMA PREFECTURE

① AIZUWAKAMATSU CITY
GREEN HATSUDEN AIZU CO. LTD.

Capacity  5700kW
Project Cost  1.9 billion yen
subsidy  950 million yen
( Ministry of Agriculture, Forestry and Fisheries )

No record of measurement of radioactive materials in fuel chips, flue gas or ash
No living environment impact assessment
BIOMASS POWER GENERATION IN FUKUSHIMA PREFECTURE
②TAMURA CITY TAMURA BIOMASS ENERGY

Capacity 7100kW
Project cost 5.4 billion yen
the Grants to Accelerate Revitalization of Fukushima 4 billion yen
Project scheme, fuel procurement scheme, etc., are blacked out and/or does not exist.
Residents are out of the loop except for people who are willing to corporate with the project.
Residents lawsuit filed over allegedly falsified high performance emission filters.
BIOMASS POWER GENERATION IN FUKUSHIMA PREFECTURE

③IITATE VILLAGE

Iitate Bio Partners
(Shareholder)
Tokyo Electric Power Company Holdings, Inc.
Tokyo Power Technology Co.
Kobelco Eco-Solutions Co., Ltd.
Kumagai Gumi Co., Ltd.

Iitate Village Warabihira Area
Ministry of the Environment
radioactive waste, temporary incineration facility
Contractor
Kobelco Eco-Solutions Co., Ltd.
Kumagai Gumi Co., Ltd.

Capacity 7500kW
Project cost 6 billion yen
the Grants to Accelerate Revitalization of Fukushima
4.5 billion yen

Contaminated bark for fuel
(evacuation order zone)
Treated as valuable materials
Project Operator: Industrial Waste Disposal Company Rogu (Gunma Pref.)

Capacity: 14,200kW

Project cost: 8 billion yen

the Grants to Accelerate Revitalization of Fukushima: 6 billion yen

Start of operation in 2023
Incinerator ash of less than 3,000 becquerel/kg is used for base course materials

① Materials up to about 3,000 becquerel/kg can be used for 30cm of shielding.
② If materials with higher radiocesium concentrations are used, the thickness from the ground surface shall be increased.
③ Even for seawalls and railroads, they can use the recycled materials with shielding of up to 30cm and 3,000 becquerel/kg can be used.
④ However, since it is necessary to maintain proper management and shielding after the completion of the construction, the recycled materials, which are not replaced by ordinary repair, should be used in public works, and the history of the place where the recycled materials were generated, the average concentration of radioactive cesium, the amount used, the location of use, should be recorded, and the administrator of the facility should be responsible for the following: Properly store them.
WHERE IS THE PERPETRATOR?

- We cannot see the government’s and TEPCO’s responsibility for the accident.
- Act on Special Measures concerning the Handling of Environment Pollution by Radioactive Materials:
  we claim TEPCO for compensation of decontamination. Biomass use is not applicable.
- No obligation to measure the concentration of radioactive substances and no obligation to keep records
- No body knows the way to treat ashes from the incinerator...
Thank you very much for your attention.