INSPECTION REPORT
BEA2024438

Date of report:	01.10.2024				page **1** of **5**
Client:	Sté Eco Energy Brothers				
Address:	4, Rue Hamouda Pacha, Z.I. Ksar Said, 2086 Tunis, Tunisia				
Subject:	Production in RN58, km 26, Sria Sejnane, 7010 Bizerte, Tunisia				
Content:	On-site Initial inspection				
Certification program:	EN*plus*® ST 1001:2022				
Date of inspection:	07.09.2024	**Date of sampling:**	24.07.2024, 12.09.2024;	**Order date:**	16.07.2024

1 EVALUATION

The wood pellets production of Sté Eco Energy Brothers, in RN58, km 26, Sria Sejnane, 7010 Bizerte, Tunisia, is complying with all requirements of:

EN*plus*® class A1

RELEVANT CHANGES SINCE LAST INSPECTION:

Fixed debarking unit installed. Raw material selection changed to pine only. Improvements on drier. General fine tuning.

MAJOR NON-CONFORMITIES:

Quality of first inspection sample not complying with the EN*plus*® standard, because of too high ash content (0.74 %). After internal optimization and more precise debarking a complying resample was provided – ash content of 0.43 %. Non-conformity considered as solved.

MINOR NON-CONFORMITIES:

None.

OBSERVATIONS:

See page 5.

This inspection report comprises 5 pages and 0 appendix(es).

EPC listed,
Auditor in Charge

Dipl.-Ing. Niklas Illich

2 SCOPE OF APPLICATION

The results contained in this inspection report shall serve as proof of compliance with EN*plus*® regulations. The client is responsible for the conformity of products with EN*plus*® regulations which will be assured when quality assurance measures according EN*plus*® regulations are continuously applied.

3 GENERAL DATA

Certification body:	BEA CERT
Testing body:	BEA
Business activities:	Production Large-scale delivery of pellets (from its own production) Bagging and trade of bagged pellets (from its own production)
Subcontractor:	No
Multisite company:	No

4 INSPECTION

Inspection by Niklas Illich in the presence of Said Lakhoua, Idriss Lakhoua, Saidani Noura. An organization chart exists and the responsibilities are clearly assigned. The responsibilities are divided as following:

Management representative:	Haroun Farhat (harounfarhat@gmail.com)
Quality manager:	Haroun Farhat (harounfarhat@gmail.com)
Contact person:	Haroun Farhat (harounfarhat@gmail.com), Sonia Lakhoua (ecoenergybro@gmail.com);

4.1 PRODUCTS

Certified products:	Wood pellets EN ISO 17225-2, Class A1
Dimension:	6mm
EN*plus*® ID:	not assigned yet
Bag design(s) approved:	No bag design approved yet, to be done after positive certification.
Bag design(s) not approved:	Currently "Kalo Premium" and "Eco Pellet" is used (no ENplus labelling etc.)
Bulk pellets:	Yes
Bagged pellets:	Yes

4.2 MASS BALANCE

Explanation mass balance:	No pellets produced on a stable level for ENplus certification. So far only small quantities from trials were sold without certification. Plan is to produce between 3-12 containers per week (29.7 t/container).

4.3 RAW MATERIAL

Origin:	100% from external supplier
Source:	Round wood (1.1.3 acc. ISO 17225-1)
Composition wood species:	100 % Pine (50/50 of two types of pine)
Form:	Logs
Raw material processing areas:	clean (paved surface) protected from contamination

Storage:	Open yard without roof and pavement for logs. Roofed paved yard and hall for chipped raw material.
Checking and documentation:	Each external raw material delivery is checked. Inspection of incoming goods in place (visually, weighing and moisture testing).
Suppliers:	All logs sourcing from state forest.
Additive:	None.
Contamination:	None.

4.4 PRODUCTION PROCESS

Raw material preparation:	Logs are sorted manually. There is a fixed debarking unit which is connected to a mobile chipper.
Drying:	Drum dryer
Separation of contaminants / impurities:	There is equipment installed for separation of contaminants / impurities.
Pellet production:	2 Mechanica presses (1.5 t/h each)
Separation of fines:	There is equipment installed for separation of fines.
Rejects:	The possibility for separation of low-quality charges exists.
Bagging station:	The internal weighing module of the bagging station is calibrated.
Storage bagged pellets:	Protected from UV light.
Storage:	Pellets are protected from moisture and contamination.
Storage capacity:	About 300 t.
Product separation:	Spatial and temporal separation of different quality classes is implemented and allows clear identification of goods.
Checking of pellets temperature:	Temperature is checked at least once per day via IR device and documented. Temperature is always ≤ 40 °C.
Loading areas:	weatherproof
Big bag delivery:	Big bags used are water resistant, sealed, but not correctly labelled yet (ID, class, diameter). To be started after positive certification.

4.5 INTERNAL PRODUCTION CONTROL

Internal production control is done according to the requirements. It is performed regularly and documented properly.
The testing equipment is state of the art, clean and in good condition. Calibration and performance tests are done.
Internal sampling: Samples are taken as 15 kg bags directly after the bagging station.

Parameter production

	Interval	Equipment	Range of values
Oversizes	1x/shift	Ruler	< 45 mm
Moisture content	1x/shift	Humimeter, IR drier	< 10 %
Mechanical durability	1x/shift	BEA TUMBLER T 1000+	> 98 %
Bulk density	1x/shift	BEA 5L container	600-700 kg/m³
Ash content	occasionally	principles of ISO 18122	< 0.7 %

Parameter delivery

	Interval loading station	Interval bagging station	Equipment	Range of values
Fines content (< 3,15 mm)	-	1x/shift	BEA 3,15mm sieve	< 0.5 %
Overlength	-	1x/shift	Ruler	< 45 mm
Temperature	N.a. yet.	-	-	-

Comparison BEA Laboratory - Internal control

	Unit	BEA	On-site Laboratory
Moisture content	%	8.4	7.9
Bulk density	kg/m³	650	622
Mechanical durability	%	98.9	98.8
Max. length	mm	ok	ok
Fines content	mm	0.2	0.07
Ash content	%	0.43	0.59

The results of the tests are within an expectable range and can be assessed as okay. On-site laboratory measured lower bulk density because container was not smashed to the floor 3x. Fines probably increased a little during shipping from Tunisia to Austria. Ash content measured too high on-site – everything within the limit anyway. Pellets were not crushed before ash content determination. Further, the inspector provided a can of specified reference material (0.59 %) for internal training purpose, to optimize internal procedure of ash content determination.

4.6 DELIVERY DOCUMENTATION

EN*plus*®-Logo or ID:	N.a. initial inspection – to be checked next inspection.
Quality class:	N.a. initial inspection – to be checked next inspection.
Mass of delivered pellets:	N.a. initial inspection – to be checked next inspection.
Bag design incl. version number:	N.a. initial inspection – to be checked next inspection.
Diameter:	N.a. initial inspection – to be checked next inspection.
Form of delivery:	N.a. initial inspection – to be checked next inspection.
Date of delivery or loading:	N.a. initial inspection – to be checked next inspection.

4.7 QUALITY ASSURANCE

Quality management:	Yes
QM competence:	Yes
Operating procedure production:	Yes
Operating procedure storage:	Yes
Operating procedure bagging station:	Yes
Shiftbook:	Yes
Maintenance and cleaning:	Maintenance and cleaning are done according to the requirements and documented properly.
Calibration and validation of measuring devices:	Calibration available. Last calibration 08/05/2023.

External trainings:	External training was not attended in current certification period.
Latest external training:	To be done within first year of certification.
Internal trainings:	Internal trainings are done according to the requirements.
Latest internal training:	15.04.2024
Documentation of non-conform pellets:	In place (type of non-conformity, amount, reaction, responsible person)
Serial number (bagged pellets):	Serial number not implemented yet.
Retain samples:	Handling of retain samples not done yet as no certified pellets sold so far. To be started as soon as certified pellets are sold as big bags. 1.5 kg per day of big bag production to be stored for at least 9 months in sealed labelled bags.
Customer complaint system:	Customer complaint system in place. System includes documentation incl. at least date, type and reaction. No complaints registered yet.
EN*plus*® trademark usage:	n.a.
Permissions for external use of own EN*plus*® Bag Design(s):	n.a.
Reporting obligation:	met

5 SAMPLING

Sampling done according to ISO 21945.
During the inspection the quality was obviously not complying due to electricity issues (no stable supply). Therefore no sample was taken in person on site. Sampling was done remotely on 24.07.2024 and 12.09.2024. Samples were sent by parcel service to BEA laboratory.

6 RESULT OF LABORATORY ANALYSIS

The results of laboratory analysis are summarized in Report Nr. BEA2024438.

7 OBSERVATIONS, REMARKS

7.1 MAJOR NON-CONFORMITIES

Quality of first inspection sample not complying with the ENplus® standard, because of too high ash content (0.74 %). After internal optimization and more precise debarking a complying resample was provided – ash content of 0.43 %. Non-conformity solved.

7.2 MINOR NON-CONFORMITIES

None

7.3 OBSERVATIONS

- QM shall attend an external QM training provided by EPC within first year of certification – contact enplus@bioenergy.co.at for upcoming events or online access.
- Implementation of appropriate labelling after positive certification, especially on invoice (ID, quality class, diameter, bag design number, mass, date, form of delivery).
- Printing/stamping of serial number on bags required from 01.01.2025 on. Date and place of production to be transparent.
- As soon as certified pellets are sold in big bags the following is required:
    - Storage of reference samples: 1.5 kg per day of big bag production to be stored for at least 9 months in sealed labelled bags.
    - Temperature control: At least once per shift shall be checked that pellets are < 40 °C while filling of big bags.
    - Big bags labelling: Big bags shall be closed and labelled with ID, quality class and diameter statement.
- Internal procedure of ash content determination to be improved. Training measurements using reference material provided by inspector are recommended. Ash content of material is 0.59 %.