RESPONSES TO THE REQUESTS FOR CLARIFICATIONS RECEIVED FROM THE POTENTIAL BIDDERS UNDER ITB No.BLR/51/2013.

1. **Question:** We design and build equipment to order and do not hold stock. The time to build is typically 12-16 weeks, but not less than 10 weeks. The shipping time to Belarus will be 6-8 weeks. Therefore while we can fabricate and dispatch equipment in 90 days, it will take approximately 140 days from contract to delivery at Mosty. Therefore we request that the delivery timeframe be altered to 150 days.
   Answer: After thorough consideration of your request to extend the delivery timeframe to 150 days we kindly inform you that such extension may lead to delays in implementation of waste management activities under the pilot project in Belarus and therefore it cannot be granted. The goods delivery timeframe under ITB No.BLR/51/2013 remains therefore ninety (90) calendar days as stated in Section 3b of the ITB document.

2. **Question:** I would like to inform you that we are interested in participating in ITB No.BLR/51/2013 for the supply and delivery of one (1) composting unit with attachments and that we gained Solicitation Documents at http://procurement-notices.undp.org/view_notice.cfm?notice_id=10586. Please inform us if there are any other requirements we need to fulfill (official statement, payment, etc.) to participate in the mentioned tender?
   Answer: A Bidder shall bear any and all costs related to the preparation and/or submission of its bid in line with the provisions of the said ITB document. A bid security as per the ITB No.BLR/51/2013 is not required (please see ITB Instructions to Bidders Data Sheet DS No.9).

3. **Question :** Could you kindly define if the documents have to be translated by a Court Interpreter or the ordinary translation is enough?
   Answer: The translation of the bid documents under the said ITB from the language of the original into English shall be ordinary translation only (court interpreter or specialized agency translation is not required).

4. **Question:** (Technical Specifications, Item) 6.0. Material of the walls of the composting unit: Hardened steel; - please confirm if inox steel 1.4301 with abrasive resistance would be acceptable for the walls.
   Answer: The bidder has the right to propose its own technical solutions for the type of material and/or its protection which are equivalent or better than those of the ITB Technical Specifications. The use of inox steel 1.4301 with abrasive resistance shall be acceptable.

5. **Question:** (Technical Specifications, Item) 14.3. Height, mm: Not more than 2750; - please let us know what deviation in size would be acceptable?
   Answer: Dimensional tolerance of the dimensions of the composting unit (items 14.1; 14.2; 14.3 of the ITB Section 3a Technical Specifications) not exceeding +10% shall be acceptable.

6. **Question:** Unfortunately it may not be possible to get the visa on time to be able to arrive for the pre-Bid conference where some practical details would be discussed.
   Is it possible to organize a meeting later on as well?
   Answer: In the course of the tendering process and during evaluation of bids the meetings with the bidders or potential bidders can be conducted only as specificed in

the ITB documents (one pre-bid conference meeting). All the communication shall be conducted in writing as provided for in the ITB No.BLR/51/2013.
The pre-bid conference has been scheduled to be held on February 08, 2013 (as per the ITB Data Sheet, DS No.7), however due to the absence of representatives of the potential bidders at the pre-bid conference there are no minutes of the pre-bid conference.

7. **Question:** Do you have some requirement for the output material?
Answer: There are no specific requirements for the output material. ITB No.BLR/51/2013 also does not contain any requirements for the output material. The end-user plans to utilize the output compost for the land reclamation, landscape gardening of the town as well as rehabilitation of the solid waste landfill.

8. **Question:** Do you have any information on the moisture of the input material and its density? The information is necessary for the mass balance.
Answer: Moisture content of the raw (initial) material collected for the composting is appr. 65-75%. Density of the biodegradable organic fraction, separately collected for the composting of the municipal waste, is appr. 840-900 kg/m^3.

9. **Question:** How was identified compatibility of the required processing volume, 1000 tons per year, with the unit composting volume, 40m^3, and the composting time specified, 20 days?
Answer: The following factors were taken into consideration for the technical assignment under the aforementioned ITB:

1. Organic fraction does not contain large volume of hardly degradable materials due to its separate collection. Its density is 840-900 kg/m^3 at the collection sites and it increases by the time of loading into the reactor up to 1250-1350 kg/m^3 because of compaction when transporting by the refuse collection vehicle from the collection sites to the processing site.
2. The daily inflow of waste with continuous loading shall not exceed 3t per 24 hours which is equivalent of 24-26 loading cycles with the duration from 12 to 20 days.
3. Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste provides for the elimination of pathogenic microflora by means of thermal treatment and compost maturing at the specially prepared sites.

As a result the continuous loading of 3t of waste per 24 hours with the process time of composting up to 20 days allows processing 850-1100t of waste per year in 40m^3 composting unit.

10. **Question in response to answer 9:**
"Organic fraction does not contain large volume of hardly degradable materials due to its separate collection. Its density is 840-900 kg/m^3 at the collection sites and it increases by the time of loading into the reactor up to 1250-1350 kg/m^3 because of compaction when transporting by the refuse collection vehicle from the collection sites to the processing site":

a) If there is such a big density you must reduce it to maximum 500 kgs/m3 to obtain the ideal porosity to achieve composting. The waste should never be compacted, since after that you will need to decompact it before it is loaded into the reactor and mixed with the bulking agent (Wood chips, straw or the like). What will be the actual volume of the waste after decompacting inside the reactor?

b) Water contain must be down to 50/55%. What volume of bulking agent must be used to achieve it? What shall be the size of the reactor to admit this volume plus the organic waste?

Answer: We plan to compost the separately collected waste. It is planned to collect waste by means of containers. The main volume of biodegradable waste for composting shall be food waste. Due to the above the density of the waste can reach 840-900 kg/m^3. After transportation of the waste by the refuse collection vehicle the density of the waste can increase up to 1250-1350 kg/m^3. The biodegradable waste shall be reloaded into the special open-type container and shall be loaded into the in-feed section of the composting unit be means of the bucket of the telescopic loader. It is not planned to add bulking agent for the de-compaction of waste as the existing technologies of composting allow composting without adding such materials into the composting unit. Also, the above technologies allow composting of high humidity waste (65-75%). It is higher than the optimal parameters, but is acceptable technologically.

11. Question in response to answer 9:

"The daily inflow of waste with continuous loading shall not exceed 3t per 24 hours which is equivalent of 24-26 loading cycles with the duration from 12 to 20 days":
3 t per day means 6 m3 per day once the correct density and humidity is obtained. To this you must add 1,5 m3 of bulfing agent to reach a C/N around 25/30. That means you will load 7,5 m3 per day.

Answer: We do not plan to load more than 2,5m^3 per day with the density 1250 – 1350 kg/m^3. The C/N ration will be within the permissible limits at that.

12. Question in response to answer 9:

a) You should have at least 30% free space inside the composter to allow the mix to aerate well, even if internal shredders and mixers are used.

b) Above means that a 40m3 composter will only have 28 m3 available space, or in other words you will have space for maximum 4 days load. In 4 days you will not get any rise in temperature to eliminate pathogens. The maturing site will actually be the real composting site.

c) "As a result the continuous loading of 3t of waste per 24 hours with the process time of composting up to 20 days allows processing 850-1100t of waste per year in 40m^3 composting unit":
Under the above mentioned conditions maximum 250/300 tons with residence periods of 21 days will be done.

Answer: The modern technologies allow operation of the composting unit having 10% of free space inside the composting unit in case of provision of mechanical mixing with forced aeration in order to avoid anaerobic decomposition. As a result, the free (empty) space will be large. Also, it is possible technologically to keep high temperature in the composting unit so that the full composting cycle shall take 12-20 days, to assure elimination of pathogens and to process 850-1100t of waste per year.

13. Question: How the installed power requirements and their compatibility with the required composting volume were identified?

Answer: In accordance with the recommendations of the UN International Energy Center which regulates the level of energy efficiency of the industrial equipment used

for processing of waste of industrial, communal, agricultural enterprises, the energy consumption for composting of 1t of organic waste shall not exceed 5,5 kW, which corresponds to the ITB Technical Specifications (item 9.0) average energy consumption of not more than 15 kWh per 24 h (average daily inflow of organic waste is appr. 3t).

14. **Question in response to answer 13:** We should distinguish installed power from energy consumption. And we should bind it to the total composting time required.
Answer: In our case the power consumption and installed capacity are determined by the capacity of power grids which shall ensure operation of the composting unit and also by the rated energy consumption per unit of output which shall ensure the most effective use of energy. Composting of food products by the traditional method will lead to violation of Belarusian sanitary standards.

15. **Question:** Is the waste by collection to be frozen in winter?
Is the installation protected or heated in winter?
Answer: The ITB Technical Specifications provide for the composting in winter period as the set operating temperature range is from -25 to +35 degrees (item 5.0 of ITB Section 3a Technical Specifications). The waste in winter will be frozen.

16. **Question:** We are planning to participate in this tender with "Joint venture Partner". Please inform us which documents must be delivered in tender documentation from both parties.
Answer: The bid submitted by the Joint Venture (JV) shall be prepared as specified under item 19 (Joint Venture, Consortium or Association) of Section 2 (Instruction to Bidders) of ITB No.BLR/51/2013. The Joint Venture Partner Information Form shall be completed as provided for under Section 5 of the ITB document.
The lead entity (in JV) shall provide all documents in line with the ITB requirements and the member entity(ies) shall provide its registration documents and documents as specified under the ITB Section 19, depending on the expected role of the entity in the JV in delivering the requirements of the ITB. Please note that all entities that comprise the JV shall be subject to the eligibility and qualification assessment by UNDP. During evaluation of a bid received from the JV the evaluation panel may seek documented clarifications as above from any and all member entities.
The JV shall submit in the bid an agreement of entering into the joint venture and the JV registration documents, if registered.

17. **Question:** Section 6 - In Section 2 there is written that the Control system must manage the compost mixing (what does it mean??) The system compost mixing work also an aeration system that aspirates air from outside, air passes through the material because it is aspirated and is sent to the biofilter...can this system be offered?
Answer: The control system shall ensure control over the processes in the composting unit, and namely to control oxygen content, temperature in the composting unit and also other requisite parameters as specified by the manufacturer. The control system shall also ensure operation of the system of mixing biomass inside the composting unit (if such system is part of the offered equipment) and aeration in conformity with the composting mode. The volume of air in the composting unit required for the processes of fermentation can be provided by the outside air intake and also by the system of circulation inside the composting unit of the air purified by the biofilter.

18. **Question:** Annex 1: Checklist 3.8. – Banker statement – is it enough that only leading partner get this paper conformations from the bank.
Answer: It is enough that only the leading partner (in case of Joint Venture) shall provide the Banker Statement in the bid.

19. **Question:** Required documents - The bidder must put some documents in the tender documentation. We would like to know is it ok if we put a copy inside and put stamp on each page "copy of the original".
Answer: As per the ITB No.BLR/51/2013 requirements of Section 2 (Instruction to Bidders), subsection D and Data Sheet DS no.19 the bid must be submitted in one original and one copy (sealed in envelopes marked "Original Bid" and "Copy of Bid". Therefore the documents under the "Copy of Bid" must be marked "copy" and the documents under "Original Bid" can be marked "original".

20. **Question:** Technical specifications – point 11.0. – Control system
– we would like to offer technology which will be suitable for you, so we would like to know from what height we gain the materials (form floor or from refuse collection vehicle) and the way it should be removed from the composting unit (to the floor or something else). Or we can offer our solution which will be the best according to our experience.
Answer: The biodegradable waste shall be reloaded into the special open-type container and shall be loaded into the in-feed section of the composting unit be means of the bucket of the telescopic loader. Compost from the composting unit is removed to the floor.

21. **Question:** What kind of floor is or will be (is possible to fix on floor).
Answer: A solid floor will be provided for the composting unit (made of concrete or asphalt). The required type of flooring can be specified by the bidder.

22. **Question:** Will be the device under the roof or not (it shall be under the roof).
Answer: The composting unit can be installed under the shed-type cover if so technologically required. However the composting unit is not to be installed inside the building.

23. **Question:** Any other dimension and weather requirements else tendered requests.
Answer: The temperature requirements are indicated in Item 5.0 of ITB Technical Specification. The weather requirements are: – 25 - +35° C. There are no other dimensional requirements apart from those indicated in the ITB Technical Specifications.