NOISE ACTION PLAN

The following action plan has been developed in consultation with Midlands Biomass and Recycling (MBAR):

Ongoing Action

To reduce the 'likelihood of complaint' immediate and ongoing action should be taken to reduce noise emanating from the site operations.

- Site management shall check site plant and equipment to ensure that there is no excessive noise due to maintenance issues. Plant shall be subject to daily checks with the CoTC holder conducting weekly checks also. Any issues found shall be noted in the site diary and reported to site management.

- All site plant and equipment will also be subject to an ongoing programme of planned preventative maintained to prevent e.g. vibrating parts or excessive engine noise.

- The principal source of noise was from the Jenz AZ600 Shredder. This high speed shredder has been replaced with a slow speed shredder, a Tana Shark 440DT. It is possible that noise may have been reduced by 5-10dBA with this change. (See purchasing policy below).

- More effective silencers have also been fitted to this shredder in April 2017 at a c0st of £7,000.

- The shredder shall not be operated other than within the block wall constructed to shield Commonside from noise of shredder operations. The block wall, which cost in excess of £10,000, has been constructed of 800mm x 600mm x 600mm Legio blocks and extends above the Shredder and perimeter wall. The wall also extends into the site to extend the shielding. (See photos)



- More Legio block walls are to be constructed to contain wastes and recycled products. Whilst these are not specifically designed to mitigate noise they will serve as additional barriers to the propagation of noise to Commonside.

- Impact noise is the type of noise most likely to attract attention. Impact noise is more likely to be an issue when handling scrap metals and inert wastes. The company mainly handles wood wastes and RDF which are generally “soft” and create less impact noise. However, the company will train staff to minimise moving and dropping materials. Minimising drop heights is simply a matter of training, to instill in drivers the correct way to tip materials out of a bucket or to drop from a grab. In each case materials should be “placed” rather than “dropped” and in the case of tipping from a bucket, materials should be allowed to roll out of the bucket rather than fall from a height.

- Training will take place to demonstrate the techniques required and this will be reinforced periodically at toolbox talks. Failure to follow the correct methods will be considered a disciplinary

issue. Site Management and the CoTC holder shall check for correct operation and any failures to follow this will be reported to site management.

- Cushioned linings and coverings have been considered, but it is has been determined that there use would not be practical. There are concerns as to how hard wearing such linings would be and the how effectiveness would diminish due to damage and wear.

- Cleaning the yard with the loader is another potential source of noise. Scraping of the yard surface to clear it of residual materials shall therefore only be carried out when absolutely necessary. Manual sweeping shall be employed where this is sufficient to deal with the issue. Where cleaning of the yard using plant is required, where practical, other materials, such as mattresses, steel wire shall be used to clear the surface and to provide a soft interface between the metal bucket of the loader and the concrete surface.

- Barriers /additional screening – Acoustic screening can be effective both near the source of noise and near the noise sensitive property. Reductions of 5–10dB(A) can generally be obtained depending on whether the noise source is partly or completely screened from the receptors (Commonside). As the receptors are located in an elevated position the barrier would need to be close to the plant or equipment which would also help to achieve the best results. The shredder has been enclosed within Legio block walls to achieve this reduction in noise levels. When noisy maintenance works are required such as cutting, grinding etc, portable screens shall be used as close to the works as possible to reduce noise levels at Commonside.
http://www.echobarrier.co.uk/acoustic-fencing/

Purchasing

- Future equipment purchasing policy will include consideration of the noise produced by the equipment and the methods of work. Where a choice of methods or plant is available, the quieter will be chosen. Generally, manufacturers will include sound level output in the specification of their equipment which site management will refer to.

- Where vehicle-reversing alarms are used, because of their tone, site management will consider the use of adjustable or directional audible alarms in regard to future purchasing, or other alternative warning systems – e.g. white noise alarms give a full spectrum of noise rather than a single tone, which is claimed to be as good as single tone alarms at close range and at a distance, it blends into the background noise. Reversing will be kept to a minimum. All site plant are currently fitted with white noise alarms.

Maintenance

- The Company will ensure that regular and effective maintenance is carried out which as well as reducing noise will contribute to greater efficiency in operation, e.g. particular attention should be paid to the Shredder and e.g. sufficient lubrication, the preventing of vibration from loose parts, engine noise and any acoustic enclosures around plant (workshop).

Site Operations

- The height from which material drops from lorries or other plant will be minimised as described above.

- Within the constraints of efficient production, site management will limit the use of particularly noisy plant. This means that shredder operations will be undertaken in batches dealing with stockpiles of sufficient size to allow a short period of constant operation to be undertaken rather than low scale constant operation throughout a day. The number of items of plant in use shall be limited where practical, e.g. scheduling works where possible to avoid operating the shredder and screen at the same time. In addition plant and equipment shall be started one-by-one and switched off when not in use. Idling shall not be allowed.

- Site management will ensure that staff avoid unnecessary revving of engines, reducing speed of vehicle movement, maintain roads to minimise vehicle noise; and pointing directional noise away from sensitive areas where possible. Vehicle routes and surfaces will be kept smooth

free from debris to prevent additional noise – i.e. "crunching" and "cracking" as vehicles drive over the debris.

- Site management will ensure that staff receive adequate information, instruction and training in regard to keeping levels of noise as low as possible on site with the use of screens, methods and avoiding impact. Site management will also use notices and signs to remind staff and visitors.

Training will include:

- avoiding unnecessary revving of engines and switching off equipment when not required;
- keeping internal routes well maintained;
- avoiding impact noise;
- minimising drop height of materials;
- correct method of tipping materials, placing and rolling rather than dropping;
- avoiding reversing (reversing alarms);
- Utilising screens and barriers;
- starting up plant and vehicles sequentially rather than all together.

- Staff will be trained in the requirements of the Noise Action Plan and this will be reinforced through toolbox talks.

Sequencing

- Site managers will liaise with the local community (Commonside residents) to enable noisy operations to take place at times when they would have the least impact on the occupiers. Initially, the company shall write to local residents informing them of the actions taken to date and the actions to be taken as part of this noise management plan. The residents shall be asked for their opinions on when noise has the most impact.

- It is envisaged that mornings will be the time when noise will have the most impact and so operation of the shredder shall be delayed until 9am. If residents identify other times which are particularly an issue then site management shall take note of this and where possible arrange site operations to ensure that operation of the shredder does not occur during those periods.

Monitoring

- Site management will regularly monitor the noise action plan listed above and ensure that staff are employing noise reduction techniques.
- Site management will patrol Commonside at least weekly and listen out for potentially problematic noise emanating from the site to ensure that the noise action plan is effective. Any additional action will be taken as necessary.
- In addition, formal monitoring using noise monitoring equipment shall be carried out quarterly, if any complaints have been received in the preceding quarter. All reports from any formal monitoring shall be made available to the Planning Authority on request.
- The CoTC holder shall also monitor noise weekly and shall visit Commonside as part of the weekly site inspection to assess noise impact.
- Site management will regularly consult with residents at Commonside to ensure that the noise action plan is effective and to discuss any potential issues.

By implementing the above action plan significant noise reduction is possible:

- Localised screening for maintenance activities and shredding operations; 5-10dB.
- Reduce impact noise – method and cushioning materials. Minimising the height that materials are dropped. Changing methods to reduce impact noise where practical (5dB+).
- Maintenance and associated checks. Installing quieter plant or fitting silencers and implementing a regular maintenance or replacement schedule to prevent uncontrolled noise emissions from worn or damaged equipment, including mobile plant (5-10dB).
- Starting up equipment sequentially rather than all at once (3dB).
- Purchasing policy (noise) 5-10dB
- Training for site staff plus notices to instruct others (5-10dB)
- Monitoring on site and at Commonside
- Enforcing speed limits. Turning off vehicle engines.
- Minimising the use of vehicle reversing alarms by careful design of routes on site.
- Restricting the types of work on site at weekends and other times which are less likely to cause disturbance following discussion with Commonside residents.

Levels noted above are estimated and based on typical noise reductions of e.g. impact noise.

If shredding noise can be reduced regardless of other action points (drops, dragging, crushing), then this will have a significant effect. The construction of the acoustic will to screen shredding operations should of itself reduce noise levels by 5-10dB. In regard to reducing the likelihood of complaint as this is the principal source of noise and the type of noise that is most likely to attract attention.

Complaints

The site operates a complaints procedure which shall be used in the event of any noise complaints received from any source. All complaints shall be immediately investigated by site staff, including patrolling area of complaint, and actions taken recorded with all records being made available to the Planning Authority on request.

The above action plan has been formulated in consultation with MBAR and with reference to some of the recommendations in Mineral Policy Statement 2 (MPS2) Controlling and Mitigating the Environmental Effects of Mineral Extraction in England – Annex 2 (Noise) & BS5228 Part 1 (1997) Noise and Vibration Control on Construction and Open Sites .