FREQUENTLY ASKED QUESTIONS: OCEANMOUNT WELL #6

Size:

What can be done to reduce the size and visual impact of the structure to house the infrastructure?

To reduce the visual impact of the building, the project team has split the roof, added a dormer and lowered the gutter line height by approximately 0.7m for the electrical room and 1.3m for the pump room. Additionally, the building was re-designed to better match the character of the neighbourhood.

Noise:

What will the normal operating noise level be?

The normal operating noise standing within the electrical building, 1 metre away from the equipment will be as follows:

- VFD Cabinet Fans – 66 dB
- Transformer – 50 dB

These sounds will be buffered with soundboard insulation on the inside and outside of the building, so the normal operating noise outside the building is minimal. Air Conditioning will be used inside the building to cool the air so there will be minimal noise escaping through louvres.

To further reduce noise levels, a new sine wave filter which is silent has been selected to replace the originally indicated sine wave filter, which would have operated at 76 dB.

Finally, the Town will replace the existing wood fence with a higher fence and install denser landscaping between the pumphouse and the neighbouring residence. Trees will also be planted between the pumphouse and Oceanmount Drive.

What requested specifications have been made with respect to this back up system to mitigate sound?

Our team specified the optional, higher grade, sound enclosure for the generator. Without this enclosure, the sound level would be 112 dB (compared to 69.8 dB.)

In the event that the backup power system is required what will be the operating noise level of the generator?

The normal operating level of the generator, which is in a sound-dampening enclosure, is 69.8 dB at 7.0m in all directions. While the generator is likely to be loud, steps can be taken to reduce the impact of the related noise on nearby residents.

- Monthly testing is short in duration (minutes) and done during regular business hours;
- Annual testing – generator runs for several hours during regular business hours, but can be reduced to the minimal time required to ensure an adequate maintenance check; and
- Many operational considerations will be implemented to reduce generator use and runtime. For example, we can program the generator so that it will not automatically turn on whenever there is a power outage, unless required for water system levels. (The Town reserves the right to operate the generator as needed during emergency conditions.)

Will there be an audible alarm system that the surrounding residents would be aware of in the event of mechanical failure?

No, there will not be a local audible alarm. Instead, SCADA systems communicate directly to Town of Gibsons' Operators. A red strobe light will flash outside of the building in case of a mechanical failure.

Exhaust and Fuel Supply:

What is the fuel supply for the operation of the backup system?

The generator is fuelled by diesel.

What can be anticipated in exhaust from this system and its impact to surrounding home occupants?

Please see attached emissions certificate.

Are there less impactful fuel sources that have been considered?

Propane would require a very large, unsightly tank that would be difficult to fill during an emergency. Natural gas is possible. However, it is not as reliable during earthquake situations, and therefore not recommended.

Mechanical Resonance and Transfer:

With respect to the normal operation of this infrastructure system what can be anticipated in vibration being transferred into the surrounding area?

We do not anticipate the pumphouse will create any vibration.

Servicing Frequency:

The residents are looking for assurance that this infrastructure will be maintained in a manner so that it will not cause concern with respect to the previously raised concerns, such as Noise and Vibration and Mechanical Resonance.

The Town has a comprehensive asset management program that details the preventative maintenance requirements of all of our infrastructure. This pumphouse will be regularly maintained under that program.

Chemical Hazard:

With treatment of the water within this infrastructure, can residents be assured that there is not any hazard related to this treatment?

There are no chemical hazards related to the water treatment process.

Can material data sheets be available for the chemicals and materials involved?

- Diesel Fuel and Liquid Sodium Hypochlorite (Bleach)

Sodium Hypochlorite solution (12%) is specified for the disinfection system, however the Town plans to use 6% as is done at all other Town facilities. 6% is regular household bleach strength.

This system is run infrequently (typically a few weeks per year) for annual water system maintenance. The bleach "smell" is minimal and normally only detectable within the storage areas inside.

Hydro Transformer:

There is mention of a hydro transformer to be located at the Shaw Road end of this infrastructure. Is this location confirmed and is it possible to locate it at the opposite end of this Well 6 infrastructure to reduce visual neighbourhood impact?

BC Hydro transformers are located throughout the neighbourhood; this will be similar size/shape. BC Hydro has not confirmed the transformer location, however due to the transformer being fed from the east, moving to the other side of the building may not be possible or would come at a large cost.

Drainage:

Currently there are issues in area with respect to drainage. What will be done to mitigate and reduce this issue with the introduction of this structure?

The site will be graded so that there is positive drainage towards the road and storm drains.

Traffic concerns:

Will there be increased traffic in the area due to this infrastructure?

No. Once it has been commissioned, Town operators will check the site once per day during normal business hours using a work vehicle.

Apart from the initial construction period, no heavy equipment is needed for the regular operation of the site.