



Note to Prestonpans and Cockenzie & Port Seton Community Councils

We are keen to ensure complete transparency in our plans for a proposed rocket engine test facility at the former Cockenzie Power Station coal store and have attended community council meetings with both Prestonpans and Cockenzie & Port Seton in order to answer any questions that the local communities may have. Following these meetings, we have received several queries and concerns from residents, both directly to ourselves and through social media. Therefore, we have decided to produce this document which we hope will clarify and make transparent all the details relating to our planned activities.

Number of Tests Per Month

As mentioned at the Prestonpans Community Council meeting on 13th August, we have revised our planned test schedule to the following (and this will be included as an amendment to our original planning application:

- There will be a maximum of 5 tests days per month with a maximum of 1 test to be conducted on each of these days.
- Each test will last no longer than 30 seconds
- This means, if we operate at the maximum number of tests per month, we will be testing our engines for a total of 2 minutes 30 seconds across each month

Emissions Produced by Engine Test

- Our engines use the fuel combination of kerosene and hydrogen peroxide.
- Kerosene has a higher flash point (the lowest temperature at which a liquid can form an ignitable mixture in air) than petrol and diesel meaning it is less volatile. The maximum volume of propellants that we will transport on site for each test is 400 litres, approximately equivalent to the volume of petrol in the fuel tanks of 4 average domestic vehicles.
- We will not require HGVs to transport our propellants given the small quantities being used, which will again reduce both the risk and the emissions produced by our activities in the area.
- Hydrogen peroxide is our oxidising agent, at a lower concentration, hydrogen peroxide is used by hairdressers to dye hair.
- Hydrogen peroxide reacts with the kerosene to produce a cleaner burn, as we have near complete combustion taking place, the output of carbon monoxide will be minimal. The main output from the engine test will be H₂O (water) and a small fraction of carbon dioxide which we plan to mitigate with various carbon footprint offset strategies.
- There will be no toxic substances produced or stored on the site at any time.

Noise Pollution

- We have and continue to work with several environmental health consultants to ensure the noise produced during our engine tests do not have an adverse impact on both the local communities and the surrounding environment.
- A limit has been set by external environmental health professionals for the noise produced on site which has been calculated to ensure that it does not exceed by a significant margin the average ambient background noise. Based on these reports, there is no evidence that there will be an adverse impact on any individuals or households in vicinity to the site (notably Preston Crescent, 280m from the site).



- We will not and importantly **cannot** exceed this noise level in line with our planning permission and therefore, all the engines we plan to test at the site will be below the maximum noise level permitted.

Job Creation and Benefits to the Local Communities

- A recent report produced by London Economics highlights the huge growth and opportunities available in the UK space industry:
 - o Total UK space industry income grew to £14.8 billion in 2017 and Scotland has been identified as a leading region for this growth.
 - o 41,900 people are currently employed in the industry with 3,400 new jobs created in 2016/17
 - o The space industry has been identified as one of the fastest growing global markets and with the UK governments plan to harness 10% of the global space economy by 2030, many thousands more jobs are expected to be created in the next few years.
- In Cockenzie, we will always require between 5 – 10 people on site while operating the test equipment. In the past 2 years, we have created 20 jobs in Scotland, and we are continually advertising additional roles offering a range of different employment opportunities in all aspects of the business. While we have our head office in central Edinburgh and our production facility in Loanhead, by having a test site in Cockenzie, we will be able to unlock the next stage of our growth which will allow us to increase employment and grow the economy in the Edinburgh and Lothians region.
- For enhanced safety, we have decided to include additional safety measures directly around the test stand which will mitigate any security and safety risks to the surrounding area and contain any issues within the test stand.

Engagement with Local Schools and Educational Establishments

- Promoting STEM (Science, Technology, Engineering & Maths) to the next generation is a key corporate value at Skyrora. We actively seek to engage youths in our activities and to display to them the huge potential that the space industry presents to the UK and Scotland, encouraging them to pursue careers in such areas.
- We have already connected with Preston Lodge High School and plan to increase this to a larger number of schools across the region.
- At our recent engine test in Cornwall, we invited over 200 local school children to view the test, this was a prominent moment as it was the first time a commercially, fully 3D printed bi-liquid rocket engine has been tested in the UK. In line with all required health & safety legislation, the school children safely stood just 15m away from the engine during the test, allowing them to experience this first-hand and the feedback we received following this event was immensely positive.
- This is the experience that we would like to duplicate for our engine testing in Cockenzie and engage with local schools to promote space careers to local children.