



CITY OF BURNABY
OFFICE OF THE MAYOR
DEREK R. CORRIGAN
MAYOR

For Immediate Release

October 6, 2011

Media Advisory Regarding General Fusion Inc.

There has been recent press coverage of a company called General Fusion, located in Burnaby on Bonneville Place near Gaglardi Way and Lougheed Highway. The company occupies office and industrial space zoned M5 Light Industrial District. In the media stories, concerns were raised in relation to the safety of the current and future operations of the company which is undertaking research and development in fusion energy. City staff, including the Director Engineering, the Fire Chief and the Director Planning and Building, inspected the company's facilities on October 5, 2011. Staff were also provided with an overview of the nature and scope of the work being undertaken by the company by Michael Delage, VP Business Development.

It is the conclusion of staff that the current operation of General Fusion at the Bonneville site does not pose any risk to its neighbours or the surrounding community, and its use of their premises is compliant with the intent and purpose of the M5 zoning of the property.

The company is undertaking research and development for the design of component parts intended, in future, to demonstrate the viability of initiating and containing fusion reactions within a magnetic field to generate energy. In general, fusion is a process in which hydrogen atoms are fused together to form helium. The process of forcing hydrogen atoms to form helium produces excess heat, which can be used to generate electricity. The process is similar to the heat generated by the sun. If fusion energy can be successfully harnessed, it is considered a safe source of energy. Information from the company on their present operations and the origin and nature of fusion technology can be found on the company's website at www.generalfusion.com or by contacting the company directly.

The current and future activities of the company on this site do not involve nor contemplate the creation or generation of fusion energy, at any scale. As noted, the activities of the company only involve developing and testing component parts that may be used in a fusion power generation system. As such, the type and nature of the activities being undertaken by the company are best characterized as research and development involving research and design, the on-site assembly of component parts, testing of components, and the improvement of the component parts based on the results and computer modelling. Once again, these processes do not involve the use of hazardous materials, nor the direct generation, in a test or other environment, of fusion energy. There are no thermonuclear reactions or radioactive components, materials or other similar processes involved with the company's program of research and development at this site.

Specific components of current and planned activities include:

- design, assembly and testing of air compression pistons involving air pressures in the order of 400 pounds per square inch.
- design, assembly and testing of a magnetic field plasma generator, an electrical component that would create a state of matter similar to hydrogen gas in which particles are ionized or charged.
- design, assembly and testing of a containment vessel to hold a liquid lead compound that would circulate at 300 degrees Celsius.
- design, assembly and testing of these components into a working scale sub-system prototype, with no energy generation reactions to take place.

The activities of the company are of a scale similar to other research and development facilities, and presented no cause for concern for staff attending the site. Fire Department and Building Permit requirements are being met by the company, on a similar basis as other research and development facilities in Burnaby.

The company intends to assemble the various components to create a scale model of the fusion containment system and generator; however, as noted, no fusion energy will be produced from the model. Should the company advance to a testing phase of development, the company has indicated that it would seek to establish a new location for the activity that would meet all federal, provincial and local requirements. This would include obtaining the necessary federal licence from the Canadian Nuclear Safety Commission, as required under the Nuclear Safety and Control Act. Burnaby staff were advised that this licence would be similar to those issued for hospital radiotherapy clinics, and university physics labs. The potential location for a larger testing facility has not been determined, and will be dependent on the results of the current development and testing phase, and future funding for this venture capital financed company.

It is the view of staff that the present research and development activity of the company is safe and is of a nature that fits well with Burnaby's objectives for 'high-tech' research and development given benefits to the City in terms of job growth, support of other business sectors, and linkages to our educational institutions. General Fusion has been nominated for a 2011 Burnaby Board of Trade Burnaby Business Award in the Entrepreneurial Spirit category.

For additional information, contact:
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