

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: Standard Aero Limited
PROPOSAL NAME: Standard Aero Limited
CLASS OF DEVELOPMENT: 1
TYPE OF DEVELOPMENT: Manufacturing Plant
CLIENT FILE NO.: 5376.00

OVERVIEW:

On November 24, 2008, Manitoba Conservation received a proposal for the construction and operation of platinum electroplating, laser welding, and fluoride ion cleaning operations in the Standard Aero facility located at 1885 Sargent Avenue in Winnipeg, Manitoba. The facility performs maintenance, repair, and overhaul activities on gas turbine engines. The exhaust air from significant emission sources will be controlled by a wet scrubber.

The Department, on December 12, 2008, placed copies of the Proposal in the Public Registries located at 123 Main St. (Union Station), the Millennium Public Library, and the Manitoba Eco-Network. Copies of the Proposal were also provided to the Technical Advisory Committee (TAC) members. A notice of the Environment Act proposal was also placed in the Winnipeg Free Press on December 20, 2008. The newspaper and TAC notifications invited responses until January 23, 2009.

COMMENTS FROM THE PUBLIC:

No public comments were received.

Disposition:

No action needed.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Manitoba Conservation – Parks and Natural Areas Branch

No concerns.

Disposition

No action needed.

Manitoba Science, Technology, Energy and Mines

No concerns.

Disposition

No action needed.

Manitoba Intergovernmental Affairs – Provincial Planning Services

No concerns.

Disposition

No action needed.

Manitoba Culture, Heritage and Tourism – Historic Resources Branch

The following comment was provided:

1. No concerns with regard to this project's potential to impact heritage resources. If at any time however, significant heritage resources are recorded in association with these lands during development, the Historic Resources Branch may require that an acceptable heritage resource management strategy be implemented by the developer to mitigate the effects of development on the heritage resources.

Disposition:

No action needed.

Environment Canada

Environment Canada indicated that the proposed mitigation methods were appropriate for managing potential impacts to air and recommended that scrubber stack emissions testing be performed to verify the assumption that hydrogen fluoride emissions are insignificant.

Disposition

Clause 20 of the draft Environment Act Licence addresses HFL emission testing.

Manitoba Water Stewardship

The following comments/questions were provided:

1. *The Water Rights Act* indicates that no person shall control water or construct, establish or maintain any "water control works" unless he or she holds a valid licence to do so. "Water control works" are defined as any dyke, dam, surface or subsurface drain, drainage, improved natural waterway, canal, tunnel, bridge, culvert borehole or contrivance for carrying or conducting water, that temporarily or permanently alters or may alter the flow or level of water, including but not limited to water in a water body, by any means, including drainage, OR changes or may change the location or direction of flow of water, including but not limited to water in a water body, by any means, including drainage. If the proposal in question advocates any of these activities, application for a Water Rights Licence to Construct Water Control Works is required. Application forms are available from any office of Manitoba Water Stewardship.

2. The proponent needs to be informed that if the proposal in question advocates any construction activities, erosion and sediment control measures should be implemented until all of the sites have stabilized.
3. Are there any wells located on the property? If so, describe their use.

The proponent responded that there are no wells on the property.

4. Two of the proposed processes (platinum plating and laser-based processing) have the potential to either harm the digestion processes of the City of Winnipeg's North End Water Pollution Control Centre and therefore enter the Assiniboine or Red Rivers unaltered or enter during a period of high rainfall when the plant does not have the capacity to treat water.

The proponent has indicated that process waste waters will be disposed of using a licenced hazardous waste transportation and disposal company. The proposal identified potential environmental effects if this had not been the case.

Waste rinsewater from the pre-plating steps will be treated in the Plant 3 wastewater treatment system since these rinsewaters are similar to those currently in Plant 3. StandardAero operates Plant 3 (1844 Sargent Avenue) under Environment Act Licence No. 2516R. Alternatively, the waste rinsewater will be disposed of using a licenced hazardous waste transportation and disposal company.

5. The proponent states that waste chemicals from the platinum plating process could result in impacts to surface water if released to the environment. The proponent states that the chemicals will not be released to the municipal wastewater system, the proponent should also specify how these chemicals will be disposed of (ex. as hazardous waste by a licenced hazardous waste disposal company).

The proponent responded that waste chemicals will be disposed of using a licenced hazardous waste transportation and disposal company.

6. In the laser-based processing, any wastewater generated during re-charge of the closed loop cooling system is disposed of as a hazardous waste with a licensed disposal company or treated to meet City of Winnipeg's sewer by-law 7070/97 and released to sewer. It is unclear how much wastewater is generated in this process, the proponent must adhere to the proposed mitigation measures.
7. The proponent states that other solutions used in the hot section coating process are 'relatively benign' and therefore no special disposal procedures are required. The proponent should identify these chemicals, and specify any other wastewater produced in the hot section coating process as well as the planned disposal methods (even if this is disposal to municipal sewer).

The proponent responds that exhaust acids in the chemical vapour deposition system and the fluoride ion cleaning process are neutralized with alkalis to form salt solutions (i.e. NaCl or NaF). Exhaust aluminum particulates are trapped in the exhaust filter, while Ni-Al type particulates deposited inside the furnace retort are vacuumed into a drum and disposed of as hazardous waste. The quantity of particulates deposited inside the furnace is very small and approximately one drum is expected to be generated each year.

Wastewater from the air scrubber could be discharged to the sewer if it met the limits of the Winnipeg sewer by-law. The wastewater could be transported to Plant 3 and treated in the wastewater treatment system before discharge to the sewer system. The wastewater could be disposed of as hazardous waste with a licenced hazardous waste disposal company.

Any metal particulate recovered during the cleaning of the FIC/CVC scrubber system would be disposed of as hazardous waste.

Waste hydrofluoric acid, waste sodium hydroxide solution, and waste ammonia (in an abnormal situation) would only be disposed of in the unusual case of decommissioning, shelf life expiration, container damage, etc. These waste chemicals would be disposed of as hazardous waste or returned to the vendor.

8. The proponent should specify any waste chemicals produced by the chemical vapour deposition system.

The proponent's response described in point 7 above addresses this concern.

Disposition

The proponent satisfactorily responded to the concerns presented. Clause 8 and 9 of the draft Environment Act Licence address wastewater disposal.

Manitoba Conservation – Sustainable Resource & Policy Management Branch

No concern.

Disposition

No action needed.

Manitoba Conservation – Pollution Prevention Branch

The pollution prevention branch indicated that emissions from the proposed facility will be appropriately mitigated through the proposed emission control systems. It was recommended that emission testing of hydrogen fluoride be required in order to verify the modelled emission rate, and repeated on a regular basis to confirm emission rates. It was also recommended that the Environment Act Licence include details clauses for odour, noise, particulate matter, and emission testing.

Disposition

Clause 20 of the draft Environment Act Licence addresses hydrogen fluoride emission testing and clauses 10 to 26 address air quality concerns.

Manitoba Conservation – Environmental Assessment and Licensing Branch

The following questions were provided:

1. Is there a potential to generate hexavalent chromium emission during the fluoride ion cleaning and laser cladding processes?

The proponent responds that fluoride ion cleaning would not generate hexavalent chromium emissions. A fraction of the welding fume generated by the laser cladding process could be hexavalent chromium. The amount of welding fume generated by the laser process is much less than gas tungsten arc welding since the power input is lower and the melt pool is smaller. The laser cladding system has exhaust filtration to trap particulates and fumes prior to emission into the atmosphere.

Disposition

The proponent satisfactorily responded to the concern presented.

PUBLIC HEARING:

A public hearing is not recommended.

RECOMMENDATION:

The Proponent should be issued a Licence for the construction and operation of a platinum electroplating, laser welding, and fluoride ion cleaning operations in the Standard Aero facility in accordance with the specifications, terms and conditions of the attached draft Licence. Enforcement of the Licence should be assigned to the Central Region of Manitoba Conservation.

A draft environment act licence is attached for the Director's consideration.

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