

SUMMARY OF COMMENTS/RECOMMENDATIONS

PROPONENT: BEHLEN INDUSTRIES INC.
PROPOSAL NAME: Heat Clean Oven Facility
CLASS OF DEVELOPMENT: N/A
TYPE OF DEVELOPMENT: Hazardous Waste (Dangerous Goods
Handling & Transportation Act Application)
CLIENT FILE NO.: 4631.00

OVERVIEW:

On June 8, 2001, the Department received an Application from Behlen Industries Inc. for the development and operation of a heat clean oven facility. The oven will be located at the Behlen property at 927 Douglas Street in Brandon, Manitoba. On June 11, 2001 the Department placed copies of the Application in the Public Registries located at 123 Main St. (Union Station), the Centennial Public Library in Winnipeg, the Manitoba Eco-Network and the Western Manitoba Regional Library in Brandon. As well, copies of the Application were provided to the Technical Advisory Committee (TAC) members. The Department placed a public notification of the Application in the Winnipeg Free Press on June 16, 2001. The newspaper and TAC notification invited responses until July 11, 2001.

COMMENTS FROM THE PUBLIC:

None received.

COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Conservation – had the following comments.

A description of the actual process to be licenced needs to be provided. For example, what exactly is the Guspro oven to be used for? Will it be used to destroy waste paint, paint filters and solvent sludge? Is this unit an incinerator and what will happen to any ash generated?

Information is required on the pollution controls installed on the oven to reduce emissions of particulates, volatile organic compounds etc.

Only limited information is provided on the emissions from the oven. Other potential contaminants could include dioxins and furans, hydrochloric acid, PAHs and organics. Further information should be provided in this regard.

No information is provided on the ambient, environment levels of the pollutants that would result from this facility.

If this unit is a hazardous waste incinerator the CCME design guidelines would apply. These guidelines provide for a minimum incinerator design temperature of 1100°C and minimum retention time of 2 seconds. From Attachment #5 it appears that the temperature is only 871°C and the retention time is only 0.82 seconds.

In addition, a Canada-Wide Standard (CWS) for dioxin/furan emissions from incinerators has been developed. In this case, an incinerator is “a device, mechanism or structure constructed primarily to thermally treat (eg combust or pyrolyse) a waste for the purpose of reducing its volume, destroying a hazardous chemical present in the waste, ...” This CWS limits the emissions of dioxins and furans from new incinerators to 80 picograms I-TEQ/m³. For new incinerators, compliance with the standard is to be confirmed by annual stack testing.

Similarly, a CWS for mercury emissions from incinerators of 50 ug/Rm³ has been developed for new incinerators.

Disposition:

All relevant comments have been addressed in the Licence.

Historic Resources - No concerns.

Highways - No concerns.

Health – had the following comments

1. The Dangerous Goods Handling and Transportation Act (Licence) should address the following:
 - i) appropriate collection and transportation of processing waste to the heat cleaning oven.
 - ii) primary and secondary containment measures in the event of a spill so as to protect surface/groundwater.
2. The stack emissions from Guspro Ovens – Air Pollutant Emission Data are listed in kg/hr. How does this translate into ppm? Do stack emissions meet ambient air quality guidelines?
3. Please ensure that an emergency response contingency plan is available for review.

Disposition:

All relevant comments have been addressed in the Licence.

Canadian Environmental Assessment Agency - The application of the Canadian Environmental Assessment Act with respect to this proposal will not be required.

PUBLIC HEARING:

A public hearing is not required.

RECOMMENDATION:

The Applicant should be issued a Licence, in accordance with the attached draft, to operate the Heat Clean Oven facility. Enforcement of the Licence should be assigned to the Western Region.

PREPARED BY:

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August 1, 2001

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COMMENTS FROM THE TECHNICAL ADVISORY COMMITTEE:

Conservation – had the following comments.

Q1. A description of the actual process to be licenced needs to be provided. For example, what exactly is the Guspro oven to be used for?

A. The proposal states that the Guspro heat cleaning oven will be used to treat paint waste, paint residue from spray booth filters and solvent sludge.

Q2. Will it be used to destroy waste paint, paint filters and solvent sludge?

A. Treatment entails heating the waste in the oven causing the paint to be destroyed by the heat. There is not a flame, the heat is the mechanism for organic chemicals to break down.

Q3. Is this unit an incinerator and what will happen to any ash generated?

A. No. Incineration uses a flame to destroy the waste. The ash is tested to determine if it is a hazardous waste and if it is, it is disposed of as required. If not a hazardous waste the ash is disposed of as a regular waste. (at landfill)

Q4. Information is required on the pollution controls installed on the oven to reduce emissions of particulates, volatile organic compounds etc.

A. The process is the use of two heating sources. The first heats the waste and the second heats the gases that are produced before they leave the stack. The air flow is low and particulates are not carried by the gas flow. Particulates form the ash which is removed as required.

Q5. Only limited information is provided on the emissions from the oven. Other potential contaminants could include dioxins and furans, hydrochloric acid, PAHs and organics. Further information should be provided in this regard.

A. In order for the formation of these noted chemicals, the waste would have to contain Chlorine. No Chlorine is present in the waste and so these chemicals are not emitted. The oven is designed so that PAH and organics are destroyed in the heating process.

Q6. No information is provided on the ambient, environment levels of the pollutants that would result from this facility.

A. Non specific emission data have been provided, but emission data specific to this waste has not been collected. The emissions are expected to be minimal. The flow of air from the oven is low and testing is very complicated and expensive. The cost effectiveness of testing is questionable.

Q7. If this unit is a hazardous waste incinerator the CCME design guidelines would apply. These guidelines provide for a minimum incinerator design temperature of 1100°C and minimum retention time of 2 seconds. From Attachment #5 it appears that the temperature is only 871°C and the retention time is only 0.82 seconds.

A. The oven is not an incinerator according to CCME.

Q8. A Canada-Wide Standard (CWS) for dioxin/furan emissions from incinerators has been developed. In this case, an incinerator is “a device, mechanism or structure constructed primarily to thermally treat (eg combust or pyrolyse) a waste for the purpose of reducing its volume, destroying a hazardous chemical present in the waste, ...” This CWS limits the emissions of dioxins and furans from new incinerators to 80 picograms I-TEQ/m³. For new incinerators, compliance with the standard is to be confirmed by annual stack testing.

A. CWS does not apply in this case.

Q9. A CWS for mercury emissions from incinerators of 50 ug/Rm³ has been developed for new incinerators.

A. CWS does not apply in this case.

Disposition:

All relevant comments have been addressed in the Licence.

Health – had the following comments

The Dangerous Goods Handling and Transportation Act (Licence) should address the following:

Q1. Appropriate collection and transportation of processing waste to the heat cleaning oven.

A. The waste is generated on site. No transportation is required.

Q2. Primary and secondary containment measures in the event of a spill so as to protect surface/groundwater.

A. The waste is solid or semi-solid and spill precautions are taken.

Q3. The stack emissions from Guspro Ovens – Air Pollutant Emission Data are listed in kg/hr. How does this translate into ppm?

A. The flow rate of the gaseous emission is required.

Q4. Do stack emissions meet ambient air quality guidelines?

A. Stack emissions and ambient guidelines are not comparative.

Q5. Please ensure that an emergency response contingency plan is available for review.

A. The Licence requires a plan to be provided.

Disposition:

All relevant comments have been addressed in the Licence.