

GLEN ABBEY RESIDENTS ASSOCIATION
INCORPORATED

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450 Parkridge Crescent
Oakville, Ontario

L6M 1A2

November 15, 1984

Mr. Dennis Perlin
Chief Administrative Officer
The Regional Municipality of Halton
1151 Bronte Road
Oakville, Ontario

Dear Mr. Perlin:

Re: Energy from Waste

The Board of Directors of the Glen Abbey Residents Association Incorporated wishes to formally advise the Regional Municipality of Halton of its objection with respect to the Energy from Waste Feasibility studies, and, in addition, formally state its concerns relative the Proposal for the Union Carbide-Energy from Waste Facility, submitted by Petro Sun/SNC, which concerns are hereby respectfully submitted.

Private Financing Proposal by SNC

The SNC proposal disregards many essential recommendations contained in the EFW Reports: the Technical Report, the Environmental Report, as well as the Financial Report.

1.0 Technical Concerns

1.1 Modular v. Integral Plant

The "Final Technical Report" by SNC deals at length with essential major differences between modular and integral plants. The differences are major with respect to the primary functions of an incinerator:

- a maximum reduction to a residue which is inert and free from organics.
- a maximum reduction of emissions. A similar air pollution control system is proposed for both modular and integral plants. However, the gas entering the control system is not similar. Where in the integral unit air is introduced over the

full area of a travelling grate and control of air distribution is better, pyrolysis and incineration are superior. Even with a similar removal efficiency, emissions will be greater for the modular plant.

1.2 Lack of Performance Results

The Report confirms the insufficiency of information published by parties other than the suppliers, in addition to minimal operating experience and performance results for modular units, in particular for larger systems.

For these reasons - as well as based on a financial rationale - the Technical Report states (pages 31, 32) for Union Carbide, a 400 t/d "integral" plant to be the recommended system.

1.3 Capital Costs

The capital cost of the air pollution system is estimated at 4.0 million
and of the total 400 t/d plant at . . 40.1 million
(see Table 7, page 57)

Contrary to the above, SNC, a supplier in consortium with a financing corporation, proposes

- a modular system without a moving grate
- capital cost air pollution control system . 1.2 million
- capital cost total 400 t/d plant . . . 19.7 million

2.0 Environmental Concerns

2.1 Performance and Standards

The "Final Environmental Report" of August 24, 1984, was prepared by I.E.C. Beak Consultants, Ltd., under sub-contract from the SNC Group, the firm which made the financing proposal to build and operate the plant. There is no doubt, a source of consulting advice should be strictly independent from the supplier and any financially interested party.

In the Report emission estimates are based on a review of published literature. It should be realized, that each of these published performance results, on which all of the following Air Quality and Impact Study is based, depend on the air pollution control system used at the particular plants, on which the publication reports. As the consultant's report rightly stresses, the reduction mentioned "can usually be achieved if one invests in the capital costs of the facility. Control efficiency is usually proportional to capital cost." (page 3.7)

Under the financing plan by the promoting corporation a plant is proposed at less than half the cost quoted in the "Final Technical Report" by this same source of expertise.

Similarly, the cost for the air pollution control system is in the proposal quoted as 1.2 million - an absurd deviation from the cost of 4.0 million quoted in the "Final Technical Report".

2.2 Stack Height

It is essential to note, the environmental consultants conclude

- for a 600 t/d Union Carbide Plant . . . 3 stacks of 195 m height are required
 - for a 400 t/d plant . . . 2 or 4 stacks of 160 and 165 m respectively.
- (pages 3.12 to 3.15 and Table 3.4)

However, the SNC proposal includes a stack of 150 feet - a mere 46 m (!), or only 28% of the 165 m recommended.

2.3 Performance

A low-cost plant would be more profitable for the financing corporation - possibly, in conjunction with lower tipping fees for the municipality. It will, without any doubt, result in more failures, partial or total shut-downs, which will occur at unacceptable frequency.

Modern incinerators are highly complex systems with numerous mechanical and electronic devices. The estimated emissions of air contaminants, of waste quantities processed, of quantity and quality of residue will only be realized if these numerous systems remain operating optimally. This is not to be expected all the time. It is an unfortunate fact that failures occur at high quality incinerators. Even more frequently, the specified emission efficiency and the quantity processed are not met. It is obvious, that considerably more failures are to be expected of the "economy" model proposed.

It is mandatory to include in the specifications a reasonably performance guarantee, including liquidated damages to be paid for each period of time the performance does not meet specified limits.

2.4 Dioxins

There is conflicting and missing evidence about the possible effects on human beings of the levels of PCDD being found in the environment. The equipment required is only since a relatively few number of years capable of measuring the low concentrations which have to be considered. Few laboratories have this equipment, and relatively few emission observations are available on a quantity which a refuse incinerator could add to the atmosphere. In essence, the report states that an emission of total PCDD and PCDF, assumed by the OME to be the best of present-day knowledge, is 50% of a currently still under review standard (limit). This pertains only to the selected stack height of 160 m.

The SNC proposal quotes: "the fabric filter promises (!) to remove a significant (?) portion of dioxin". Actually, fabric filters can remove up to 99% of particles larger than 10 microns. This lets through considerable parts of the fumes. Wet scrubbers not only remove particles to 1 - 5 microns, but also remove water soluble gases. Electrostatic precipitators can remove ionizable aerosols and particles down to 0.1 micron in size, with an effectiveness of 80 to 99%.

3.0 Financial Concerns

3.1 Lower Revenues from Electricity Sales

The impact from lower revenues from the sale of electricity energy to Ontario Hydro makes a Union Carbide - EFW plant an even more costly and unattractive alternative.

3.2 SNC Private Financing Proposal

The proposal states (section 6.5, page 60), minimum tipping fees are to be paid whether refuse is delivered or not. Similarly, for a guaranteed minimum purchase of electric energy.

If the plant would malfunction, causing a capacity reduction or total shut-down, this constitutes a failure of the service to be supplied by the plant, for which non-service the municipality would still have to pay tipping fees and the electric energy buyer for energy not supplied.

Actually, the consortium should guarantee the performance of the facility in financial terms, by paying for liquidated damages when staying below minimum quantities processed.

In addition the proposal states (section 6.7, page 62), that the municipal fee "be finally determined upon completion of all project factors". Costly overruns of capital costs during construction occur not only frequently, but not uncommonly are of major proportions. While the municipality would not have any control over the construction costs, the proposal states that the municipality would bear the effects of a cost increase by paying increased tipping fees. As asserted, the lower-cost plant proposed indicates that major capital cost increases are to be expected and consequently higher tipping fees.

3.4 End of Ten-Year Agreement

Even more unfavourable, at the end of the 10-year agreement period, a totally new situation has to be considered.

A complex plant is existing with the vast, related considerations of financial, ecological and social impact, in conjunction with a landfill site, dimensioned to take the remaining average 51% of the waste, and approved after major environmental and social battles have been won.

However, the plant would be owned by a private corporation, who would so be in a position to dictate terms of a new agreement to the municipality.

Summary

1. The Glen Abbey Residents Association recognizes the SNC proposal for the Union Carbide option as unacceptable for the major characteristics of this proposal - the technical, environmental, as well as the financial characteristics.
2. The Association recognizes that the approach of emissions of dioxins is unacceptable in its uncertainty, and in particular, the proposed abatement of dioxins in the gas is insufficient, whereas actually no margin of safety is proven.
3. The Association considers consulting advice to be strictly independent from any supplier or financially interested party, in order not to seriously compromise the integrity of the advice.

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4. The Association recognizes that the additional capital costs of the Union Carbide - EFW plant - an additional cost of \$ 82 million in 1995 over the 100% Landfill option - is exorbitant to attain an approximate 50% reduction and corresponding energy recovery.
5. Considering the present lack of a financially feasible steam customer, it is recognized that energy from waste cannot be afforded, and 100% landfill is the best alternative.

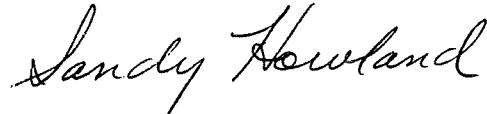
For any further clarification of our position, please contact the Board of Directors.

Yours very truly,



Andrew C. Leeksma M.Sc., P.Eng.

ACL/djl



Mrs. Sandy Howland
President
Glen Abbey (Oakville)
Residents Association
Incorporated

c.c. Otto Jelinek, M.P.
James Snow, M.P.P.
Mayor Harry Barrett
Jackie Cutmore, Regional Councillor
Peter Arch, Regional Councillor
Ralph Robinson, Councillor
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Peter Pomeroy, Regional Chairman
Anne Mulvale, Regional Councillor,
Chairman Solid Waste Management Committee
Liz Behrens, Councillor,
Chairman Solid Waste Steering Committee
John Pappain, Petro-Sun Inc.
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