



DAVID KROFCHAK LIMITED

470 COLLIER MACMILLAN DR., P.O. BOX 1060, CAMBRIDGE (G), ONTARIO N1R 5Y7
PHONE (519) 623 4441

CONSULTING ENGINEERS AND SPECIALISTS AT STEEL PICKLING,
STEEL PROCESSING, CHEMICAL PROCESSES AND POLLUTION CONTROL

AND SUBSIDIARY COMPANY — ONTARIO LIQUID WASTE DISPOSAL LIMITED

July 11th, 1977

Gentlemen:

Subject: Case Histories Are the Only Real Proof of Results

Engineers can tell you they can solve this problem or that problem, and we confess to say that we are no exception. However, when we engineers can quote actual case histories as evidence of being able to solve similar problems and produce the same results, it should and does help the decision making process of our clients.

Bearing the above simple facts in mind, we would like to report to you two very interesting case histories which are totally different operations, but whose goals were the same, i.e. "to have effluent free operations while simultaneously reducing costs".

Case History No. 1 — A Uranium Mine

This uranium mine is one of the largest mines in the world and is deeply concerned about the seemingly endless problem of more and more waste and tailings lagoons impounded by vulnerable dykes and dams.

Our work dramatically shows that:

1. The tailings and waste lagoons can be totally eliminated.
2. The processes can be improved by spending \$1,000,000 which will result in \$2,500,000 per year savings in chemicals, utilities and process costs.
3. The tailings can be processed into high grade mine backfill at 20% of the cost of comparable Portland cemented backfill.
4. All tailings and wastes not used for backfill can be solidified into landfill material from which low profile hills will be formed thus eliminating tailings ponds and lagoons.
5. All water (less bleed off for backfill and landfill) is recycled producing unexpected benefits in processing and completing the concept of a "NO-EFFLUENT MINE MILL COMPLEX".

Total cost of project is about \$8,000,000 and could save up to \$4,000,000 per year.

Case History No. 2 — A Large Steel Mill

This steel mill is a division of a large steel company on the North American continent and has several large continuous pickle lines pickling about 3,000,000 tons of steel per year. This plant is troubled by the fact that the Government is forcing them to eliminate pollution and install among other things, a waste treatment plant for rinse water costing \$1,500,000 and an additional operating cost of over \$100,000 per year.

Our work shows:

1. The Pickle Lines can be made effluent-free by changing the heating system and improving the rinse system
2. The revised system will reduce costs for acid, steam, water and treatment costs by over \$1.00 per ton pickled after deduction of operating and maintenance costs, thus saving over \$3,000,000 per year.
3. The cost to implement all the changes will be less than \$2,000,000 thus giving less than one year payback.

These case histories are dramatic examples of the work we have been doing for the last 5 years with this company and our senior staff has over 10 years doing similar work for other companies before we came together to form the present team. We hope this letter will encourage the management of your company to consider calling us in to look at your processes and systems with the objective of improving costs by eliminating pollution which clearly is sometimes wastage in disguise.

Yours truly,

DAVID KROFCHAK LIMITED

David Krofchak, P.Eng.

President