

REGIONAL MUNICIPALITY OF OTTAWA-CARLETON
MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf.
Your File/V/Réf.

DATE 25 February 1997

TO/DEST. Co-ordinator
Corporate Services and Economic Development Committee

FROM/EXP. Environment and Transportation Commissioner

SUBJECT/OBJET **PREDESIGN REPORT FOR LEMIEUX ISLAND AND
BRITANNIA WATER PURIFICATION PLANTS - UPS AND
GROUNDING STUDY - CONSULTANT APPOINTMENT
CONTRACT NO. CC 7608**

DEPARTMENTAL RECOMMENDATION

That the Corporate Services and Economic Development Committee and Council approve the appointment of Wood, Banani & Associates Ltd., Ottawa, to undertake a study of the existing Uninterruptable Power Supply (UPS) and grounding systems at the Lemieux and Britannia Water Purification Plants, for a total contract provision of \$60,600.00.

DISCUSSION

The present UPS systems were installed primarily to avert possible damage to the computer system (SCADA) at the Region's two water purification plants during planned and unplanned Hydro power interruptions. A design review of the existing system is required due to the ongoing growth of the SCADA system and the addition of other support systems over the past few years. The design review will determine if the existing UPS and related grounding systems need to be replaced or upgraded in order to accommodate further system expansions.

The SCADA system is a vital component of the water operation as it monitors and controls the water treatment processes at the water plants, as well as controls equipment at the other 38 remote water facilities (pumping stations, reservoirs, well systems). The UPS system is required to allow the operation of the SCADA system as well as other support computer systems, when Hydro power interruptions occur. Hydro power interruptions occur on an average of between

five and ten times per week, due to our agreement with Ottawa Hydro. The agreement requires the water plants to go off Hydro during daily Hydro peak demand periods, whereby the water plants operate on generators. The Region will save approximately \$450,000.00 this year through reduced Hydro costs because of this unique agreement with Ottawa Hydro.

Three firms were invited to submit proposals for the UPS design review. Staff recommend awarding this contract to Wood, Banani & Associates Ltd. based on the firm's experience with similar projects, expertise and knowledge of the systems involved as well as their ability to undertake field investigations and make recommendations for improvements.

The cost of the UPS Design Review consists of \$51,495 plus G.S.T. in the amount of \$ 3,605 and a contingency allowance of \$5,500, for a total contract provision of \$60,600.00

CONSULTATION

Public consultation was not conducted since this project does not have a direct impact on the public.

EXPENDITURE JUSTIFICATION

The design review will determine if the existing UPS and related grounding systems need to be replaced or upgraded in order to accommodate further computer system expansions. A UPS failure would result in a loss of control of equipment at the water plants and at remote automated facilities. Such a failure could cause serious damage to equipment as well as impact the water treatment process.

FINANCIAL STATEMENT

	\$
Approved Budget to Date	750,000
Total Paid & Committed	<u>(160,846)</u>
Balance Available	589,154
THIS REQUEST	<u>(60,600)</u>
Balance Remaining	<u>528,554</u>

Funds have been provided in the 1996 Capital Budget, Account Number 922-41752-3603, Water Division Facilities Upgrade (Reference page 259).

Approved by
M.J.E. Sheflin, P.Eng.

FINANCE DEPARTMENT COMMENT

Funds are available as indicated.

*Approved by T. Fedec
on behalf of the Finance Commissioner*