

MEMORANDUM OF UNDERSTANDING

between

MANITOBA CONSERVATION

(hereinafter referred to as MC)

and

INCO LIMITED - MANITOBA OPERATIONS

(hereinafter referred to as Inco)

for the implementation and operation of an expanded outdoor ambient air quality monitoring network in the community of Thompson, Manitoba.

Purpose of the Agreement

Manitoba Conservation and Inco Limited (Manitoba Operations) agree to place into operation and maintain an ambient air quality monitoring network within the community of Thompson, Manitoba for the determination of ambient particulate matter and heavy metals. This program would supplement the existing air quality monitoring being undertaken as per regulatory requirements by Inco Limited for the determination of sulphur dioxide.

Background

As per requirements of Manitoba Regulation 165/88, Inco has operated an ambient air monitoring program for sulphur dioxide in the City of Thompson for many years. The data are submitted to MC and are included in the provincial air quality database. These data have formed the basis for the evaluation of local conditions for achievement of provincial air quality objectives, the success of pollution abatement activities and for overall reporting on environmental conditions.

In recent years, the knowledge of the human health impact from fine particulate matter exposure and associated heavy metals has expanded. In response to the presence of these substances in the air, Canada-wide strategies have been developed and criteria have been established.

No data on particulate matter or heavy metals levels are available for the Thompson community. There are a number of sources that can contribute to levels of these substances in the air, including emissions from Inco's smelter operation. Therefore, it is desirable to collect such data

for the community so that informed decisions can be made about the significance of levels that may be encountered from time to time. A monitoring program could provide such information and would generally supplement other activities in other parts of the province where such data are being gathered.

Commitments

MC and Inco agree to collaboratively engage to design, implement and operate a particulate matter and heavy metal in air monitoring program for the Thompson area. In general, MC will provide technical advice for the program, some selected monitoring equipment and program oversight services; Inco will undertake the day-to-day activities of the monitoring program operation and delivery.

- a) Manitoba Conservation's roles and responsibilities under this MOU will be to:
- collaborate in the development, design, implementation and oversight of the monitoring program.
 - provide two particulate matter analyzers ('TEOM' monitors) for the determination of continuous real-time fine particulate matter (PM_{2.5} and PM₁₀).
 - assist with the initial set up of the monitoring equipment and provide overall guidance on operations.
 - undertake annual quality assurance audits of the monitoring operation and provide recommendations for changes, if required.
 - generally provide technical assistance for the operation of the instrumentation.
- b) Inco's roles and responsibilities under this MOU will be to:
- collaborate in the development, design, implementation and management of the monitoring program.
 - provide appropriate accommodation for housing the operation of the two provincially-supplied TEOM analyzers, at a mutually agreed upon location.
 - obtain adequate technical training to operate the TEOM analyzers as per recommended procedures.

- operate, maintain and support the TEOM analyzers including provision of supplies, replenishables and repair parts as may be required to sustain operations in accordance with recognized norms.
- secure, operate and maintain a Partisol particulate matter sampler for the purposes of obtaining particulate matter concentrations and levels of selected heavy metals associated with Inco emissions. Sampling will be conducted at a mutually agreeable location using agreed upon procedures, including sampling and analytical frequency.
- obtain adequate technical training to operate the Partisol sampler as per recommended procedures.
- provide access to the samplers so that MC may conduct an audit of operations.
- provide the sampling results and data to MC on a mutually agreed schedule.
- publicly release the data in a form and frequency based on mutual agreement.

c) Both parties shall agree to:

- expedite a timely commencement of this monitoring arrangement (planned for the third quarter of 2004).
- annually review operations and make changes that may be necessary to support a high level of operation and data gathering.
- operate this monitoring network for a minimum period of three years at which time a decision on continued operations (or part thereof) would be made.
- give six months notice should changes have to be made to the monitoring arrangement of this MOU.
- the public release of this MOU and information/reports arising from this monitoring initiative.

Status

Planning is currently underway for the commencement of this project. MC has the TEOMs available for field placement. Inco has ordered the shelter for the TEOMs and the Partisol sampler. It has been agreed to locate the Partisol sampler at Riverside School. Siting of the

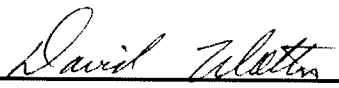
TEOMs is still under discussion. Tentative plans are to initially set up the equipment in early July 2004.

Implementation of the MOU

As signatories, both parties recognize the rights and responsibilities of the other to take actions in the event of any defaults on the commitments noted herein. Insofar as such defaults can be resolved through bilateral discussions, the parties can and shall endeavour to amend this MOU to account for lack of clarity or changes of circumstance which may have contributed to the default. However, in the event of an unresolved default, nothing in this MOU precludes Manitoba Conservation from pursuing other actions it may deem appropriate.

By signature below, Manitoba Conservation and Inco Limited agree to undertake the requisite steps and actions necessary to achieve the objectives of the MOU.

Signed on behalf of Manitoba Conservation:

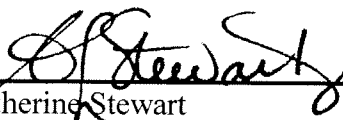


David Wotton
Assistant Deputy Minister
Conservation Programs Division
Manitoba Conservation

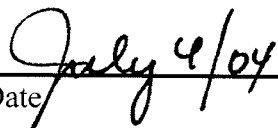


Date

Signed on behalf of Inco Limited (Manitoba Operations):



Catherine Stewart
Superintendent – Environment & Health
Inco Limited
Manitoba Operations
Canadian / UK Division



Date