HEARING DAY TWO

COGEMA Resources Inc: Application for a Uranium Mine Site Preparation Licence for the Midwest Joint Venture Mining Facility Excavation Site

THE CHAIRPERSON: The next item on the agenda is Hearing Day Two in the matter of the application by COGEMA Resources for a Uranium Mine Site Preparation Licence for the Midwest Joint Venture Mining facility Excavation Site.

Could I please ask the applicant and staff to approach the front.

--- Pause

THE CHAIRPERSON: The first day of the public hearing on this application was held February 28, 2002.

The public was invited to participate, either by oral presentation or written submission on Hearing Day Two. March 19th was the deadline set for filing by intervenors and the Commission, as of that date, had not received any request for intervention.

The Notice of Public Hearing 2002-H1 was published on December 3, 2001.

Commission Members present for

Day One of the hearing included Dr. Barnes, Dr. Giroux, Mr. Graham, Ms MacLachlan and myself. Since Ms MacLachlan is absent today, she will not be participating in the decision.

Presentations were made on Day One by the applicant, COGEMA Resources Inc. under CMDs 02-H6.1 and 02-H6.1A, and by Commission Staff under CMD document 02-H6.

02-H6.1B

Oral presentation by COGEMA Resources Inc.

THE CHAIRPERSON: I note that Mr. Pollock from COGEMA Resources is here today to present supplementary information which is contained in CMD document 02-H6.1B.

Mr. Pollock, you may begin.

MR. POLLOCK: Thank you.

Good morning, Madam Chairman and Members of the Commission. For the transcript record, I am Robert Pollock, Vice President of Environment, Health and Safety of COGEMA Resources Inc. I am here in support of our application for a uranium mining facility site preparation licence from the CNSC for the Midwest Project, for which Day One of the

hearing was held on February 28.

Also with me this morning is Mr. Brian Reilly of our company, who is actually here for the next hearing on Kiggavik-Sissons, and he has agreed to advance my overheads during this presentation.

There were no specific requirements for additional data identified in the transcript of Day One, however, after reviewing our responses to several of the questions raised by Commission Members, we felt that we should make a brief oral presentation today to provide further details to some of the information provided on Day One.

The format I will use is to identify each item for which we are providing further details, together with a reference to the location in the Day One transcript, and then provide the information for that item.

I'm sorry, that is the one that I actually had intended to have up on my introduction. Do you want to go to the next one.

This slide lists the items.

On pages 19 and 20 of the

transcript, in response to a question on whether there have been any lost time accidents during the period of nearly a decade since COGEMA Resources has been the operator, I indicated I didn't recall any since 1997, which covers the period with which I am directly familiar.

I have subsequently reviewed the annual reports since COGEMA Resources became the operator in 1993, and consulted a colleague who has held senior management positions in the Saskatoon office since then. No lost time accidents have been identified.

At the top of page 21, a question was asked about downstream surface water monitoring. I responded that the current monitoring location, which is at approximately the middle of the Mink Arm of South McMahon Lake adjacent to the test mine site, shows only normal background concentrations.

I can now add that historically surface water monitoring extended to several locations further downstream, certainly as far as the inlet of the next lake beyond South McMahon Lake. With the approval of the regulatory agencies, these locations were

discontinued after 1993, since this was several years after the test mining period and the data showed only normal results.

On page 23, a question was asked about the water quality in the HDPE lined settling ponds, shown in the centre of this aerial photo. These are the settling ponds that were used previously during the test mine period to receive water from the water treatment plant, which is the very small blue building just to the right of the lined ponds.

These ponds were last sampled in 1997 and the results submitted to the regulatory agencies as part of the process for obtaining their approval for the 1997 site cleanup program. The results were similar to previous 1996 results, showing radium-226 values below Saskatchewan Surface Water Quality Objectives, or SSWQO, uranium elevated in one pond but below 100 micrograms per litre, and arsenic slightly elevated at both ponds, ranging from about the SSWQO value of 50 micrograms per litre to several times this amount.

All of these concentrations are well within the discharge limits established by

the Metal Mining Liquid Effluent Regulations.

After shutdown of the water treatment plant after testing mining was complete, my understanding is that any water to be pumped from these settling ponds was planned to be released to the nearby unlined surge pond for uncontaminated water.

The only instance of this which has occurred since 1992 was approved in 1997, after information was provided on the estimated evaporation and infiltration rates. Subsequently, about 5,000 cubic metres of water was pumped from the two settling ponds to the surge pond where it dissipated by evaporation and infiltration into the ground.

No further pumping has been required since then, as average annual evaporation from surface water in the Athabasca Basin typically is about equal to annual precipitation. At these ponds, the dark coloured HDPE liners will promote evaporation in the summer.

In 2001, the freeboard in these ponds was two metres or greater throughout the year, compared to a minimum requirement of one

metre. There remains a small quantity of contaminated sediment, about 0.2 metres, in the bottom of these ponds and the conceptual decommissioning plan provides for future removal of this and the liners. Appropriate disposal will be provided at McClean Lake Operation for these materials.

In summary, the lined settling ponds are in a stable state posing no risk to the environment. It is planned to retain them in this state, since it is possible that they, and the mothballed water treatment plant beside them, will be useful during the early stages of future site development.

On pages 24 and 25, there were questions asked about the pumping of water into the flooded test mine shaft. This has historically been the method approved by the regulatory agencies for removal of excess water from the former HDPE lined contaminated water surge pond. Unlike the water treatment plant settling ponds, this collection pond systematically captured contaminated water faster than evaporation, because it collected drainage from the adjacent lined storage pad for

ore and special waste rock.

The ore and special waste were transferred to McClean Lake in 1997 and the cleanup of the site completed in early 1999. The cleaned up area where this storage pad and collection pond were located is shown in the foreground of the picture.

A review of the annual reports since 1992, and of correspondence with the regulatory agencies about the site cleanup, indicates that the average rate of water removal was in the order of 1,000 cubic metres per year, although this was not required every year. Over the approximately eight years between the end of the test mine period and removal of the storage pad and pond, the total amount is estimated to be in the order of 8,000 cubic metres.

Discharge to the test mine shaft took place over extended periods of two to three months, since dissipation of excess head in the shaft was slow.

The shaft was constructed with a concrete liner to limit water infiltration during test mining, and consideration of the available head difference and shaft

cross-section suggests a rate of water addition of 10 to 20 cubic metres per day. This is consistent with the available data for amounts removed over periods of two to three months.

A series of 10 samples collected over the shaft depth since the Day One hearing show relatively uniform concentrations of about 1.2 becquerels per litre of radium-226, 20 micrograms per litre of uranium and about 580 micrograms per litre of arsenic over the entire depth, with no trends with elevation.

The test mine shaft volume of about 2,000 cubic metres somewhat exceeds the amounts of water removed each time from the surge pond, so there would not be a full replacement of the shaft water inventory each time. Periods of about one year, or in some cases two years occurred, between successive additions to the shaft.

The water displaced from the shaft would mix with the groundwater, presumably at the bottom of the shaft and perhaps for some distance along the horizontal drift. The rate of further movement of the groundwater would be slow, since the hydraulic gradient between the

test mine location and Mink Arm will be low.

A conservative calculation of the maximum potential impact on water quality in Mink Arm can be made by assuming that the estimated total amount of 8,000 cubic metres of water discharged to the shaft, containing the concentrations of radium-226, uranium and arsenic measured in the shaft water in the recent samples, is instantaneously transported to and mixed with that portion of Mink Arm adjacent to the test mine and constrained by the dam. As I mentioned last time, the dam has now been breached by a culvert to allow free exchange of water with the rest of the lake.

A simple mass balance calculation indicates that there would be no detectable differences from normal background concentrations of radium-226 or uranium. Arsenic concentrations could be measurably increased, but would always be more than 10 times less than SSWQO. Any actual transport of arsenic would be much slower, consistent with the observed data which shows no detectable changes in the actual surface water monitoring data from year to year.

The overall conclusion is that the previously approved discharge of contaminated water from the lined surge pond to the test mine shaft has not, and will not, lead to any significant environmental impacts.

In summary, we believe that the additional information further confirms our previous statement that the Midwest site poses minimal risk. As noted in our Day One presentation, COGEMA Resources requests approval of a site preparation licence by the Commission, to continue the Midwest Project as an excavation site in a care and maintenance mode for an indefinite period.

Thank you.

THE CHAIRPERSON: Thank you.

My understanding is that the CNSC Staff does not have a formal presentation for Day Two but is here to answer questions.

Is that correct?

MS MALONEY: This is Cait Maloney.

That is correct.

THE CHAIRPERSON: The floor is now open for questions from the Commission

Members on this application.

Dr. Barnes.

MEMBER BARNES: Maybe two or three small ones to the applicant.

You mentioned that looking back over the issue of lost time you had your own recollection and you consulted with a senior colleague who had been in that position for the last decade in order to retrieve the information, so I am surprised that that kind of information on lost time accidents isn't retained in a database somewhere.

MR. POLLOCK: We do have databases that we now are quite, I think it is fair to say, consistent in ensuring that we capture not just lost time accidents for COGEMA employees but also for any contractor staff. Historically that was not always the case if a contractor reports an accident or a lost time incident directly to Worker's Compensation. So it is part of the contractor's records. It was not historically the practice that that was consistently captured by us. It is now.

MEMBER BARNES: On page 4 where you are talking about the settling ponds and

they were last sampled in '97 as part of the process for the '97 cleanup and there were similar analyses in '96, but it is implied here that there have been no further analysis since '97. One might ask the question why and, if not, when is the next analysis planned, if at all?

MR. POLLOCK: There has been no need or any indication that there would be a need to actually remove any water from these ponds. They appear to have an overall evaporation loss that more than offset -- if there is any precipitation that collects in them, that falls on them, the subsequent evaporation rate is quicker so there has been no apparent need to sample them.

Clearly they would need to be sampled in advance if one saw that the levels were rising so there was going to be a need to remove water.

I actually would have had them sampled subsequent to Day One, between Day One and now, except the little amount of stuff that is in them is frozen solid, so it is very difficult to get anything that would represent a

representative sample if you have to do it by collecting ice. Certainly we would sample them in future well in advance of any proposal to have to remove water from them.

THE CHAIRPERSON: Mr. Graham.

MEMBER GRAHAM: A question to COGEMA.

The first question really is: There is no one at the site now. Is that correct? Or is there caretakers at the site?

MR. POLLOCK: There is nobody permanently at the site. It is visited on an absolute minimum on a monthly frequency by our McClean -- it is basically looked after by McClean Lake operation. They go at least monthly, more often if they are heavy rainfall events in the summer or during spring snow melt. Obviously on occasions when there is any work that is being done there, either by ourselves or by a contractor, we would bring people over to supervise that work.

MEMBER GRAHAM: How often during spring run-offs and large melts -- in the melt and also in the heavy rain season -- do you inspect things like the dikes and dams and so on

that there isn't a break in any of those that there could be contamination?

MR. POLLOCK: There are no actual dykes or dams that, I think, have any implications in terms of being necessary for containment of materials. We do have those two ponds, but the worst incident that one could visualize would be that they overflowed. I believe a metre of free board -- the stipulation is that we maintain at least a meter of free board and last year there was no difficulty in maintaining two. That would more than offset a maximum possible of precipitation event, if I recall the number correctly for these maximum events.

So other than that, the site has been cleaned up and it's essentially just sitting there in a passive state. I think the short answer in terms of frequency would be it tends to be event-driven. If there is a heavy rainfall, the Environment Department from McClean would go the site. I do think that I have recollection of seeing that they went as often as weekly when I looked at the tables in the old annual reports.

Again, it would depend. If there has been a year like this year with not very much snowfall, one could visualize it wouldn't be necessary at all. I do recall seeing at some times during the year perhaps as often as weekly during snow melts.

MEMBER GRAHAM: I guess the reason I'm asking that is that in one of the licensing conditions, proposed licence conditions, it says that "the licensee shall notify the Commission within 24 hours of discovering any environmental protection action level". What I am coming at is if you say you only go once a month, even with that 24 hours in there, there could conceivably be something happen that might be several weeks before notification.

My question would be: Has there been any events that have happened that have given part to giving notice to the Commission?

MR. POLLOCK: No.

MEMBER GRAHAM: Also, "the licensee shall also submit the results of site inspection and environmental monitoring programs at frequencies". How often are these reports

done and are they done an on annual, semi-annual basis and are they up to date?

MR. POLLOCK: There is always an annual report for any licensed facility. It has a deadline date, and I believe we have met all deadlines dates at all sites, certainly since I have been with the company in the last four years.

I believe we also submit a monthly report for that site, but I'm not sure of that. I know we submit monthlies for the main sites. Certainly we have an annual report that summarizes the inspections.

MEMBER GRAHAM: In the licensing conditions, proposed licensing conditions, it says: "You shall submit to the Commission by March 31st of year a written annual report", but before that it says, "The licensee shall submit the results of site inspections and environmental monitoring". It doesn't say how often.

I think my question would be to CNSC staff. How often do you require this and should that be put into the condition as to how often, or are you agreeable to just the once a

year annual report?

MR. McCABE: Rick McCabe. I'm the Director for the Uranium Mines and Lands Evaluation Division.

For this site because of the very limited activity that is taking place, the monitoring is done generally twice a year. So the frequency is not specified in that licence condition, but that said the way we read it and interpret it is that the inspection reports are submitted once they are completed. That would be a trigger for the staff -- they would review that and then based upon that maybe take whatever corrective action is needed. So that would be forthwith or after the inspection has been completed.

We do not get monthly reports for this facility because the monitoring is not done on that basis -- I'm talking about environmental monitoring -- and we get that semi-annually and then summarized in the annual report.

Given the limited activity, we find this acceptable.

MEMBER GRAHAM: Are you saying though that every time that the company does

site inspections, an environmental monitoring program has been carried out at whatever frequency it is, then you have to report? Is that correct?

MR. McCABE: No. We would not get the inspection reports unless they were reviewed on site. The monitoring reports I referred to we would get an a semi-annual basis. Any deficiency -- I mean, part of the licensing and the whole process and the conditions in the licence indicate that there is degradation at that site and they would have to report those kinds of things. A report not indicating any kind of deficiency would not be forwarded to us.

MEMBER GRAHAM: Thank you.

THE CHAIRPERSON: Further questions? This completes the record for the public hearing on the matter of the application by COGEMA Resources Inc. for a uranium mine site preparation licence for the Midwest Joint Venture Mining Facility Excavation Site.

The Commission will deliberate and will publish its decision in due course. It will be posted on the CNSC website as well as distributed to participants.

Thank you very much.