

MGM Energy Cuttings and Fluids Injection Facility Information Response Round 3

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From: Susan Sevckenko
To: Bharat Dixit (bdixit@neb-one.gc.ca)
CC: info@nwtwb.com, Nathen Richae (richean@inac.gc.ca), Peter Jalkotzy, Regulatory Filing, Shirley Maaskant, 'sorenseng@inac.gc.ca'
Date: Friday, September 12, 2008 3:09:27 PM
Subject: MGM Energy Cuttings and Fluids Injection Facility Information Response Round 3
 Final NEB Cover Letter, Cuttings and Fluid Injection Facility Information Response Round 3 September 12.pdf

Good afternoon Bharat. The attached is MGM's submission in response to Information Requests provided to Shirley from John Korec September 5, 2008.

Please feel free to contact Shirley with any questions or concerns you might have.

Susan

Susan Sevckenko
Regulatory &
Community Affairs Administrator
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September 12, 2008

delivery via email

National Energy Board
444 Seventh Avenue SW
Calgary, Alberta
T2P 0X8

Attention: Bharat Dixit, Chief Conservation Officer

Dear Sir:

Re: MGM Energy Corp. Cuttings and Fluids Injection Facility at Aput C-43
Information Requests (IRs) #3 dated September 5, 2008

MGM Energy Corp. (MGM) acknowledges receipt of the National Energy Board's (NEB's) letter dated September 5, 2008 outlining Information Requests (IRs) #3 for the proposed Cuttings and Fluids Injection Facility at Aput C-43. MGM has prepared the attached IR responses.

We trust this information is satisfactory for your purpose. Please do not hesitate to contact Shirley Maaskant at (403) 781-7840 or by email at shirley.maaskant@mgmenergy.com should you require more clarification.

Yours truly,
MGM Energy Corp.

Shirley Maaskant
Manager, Regulatory and Community Affairs

cc Ron Wallace, A/Executive Director, Northwest Territories Water Board
Glenn Sorensen, Resource Management Officer III, INAC
Nathen Richae, Environmental Assessment Coordinator, INAC

IR Number: NEB – 3.1

Source: National Energy Board

To: MGM

Preamble:

In the MGM Project Description dated May 2008, Table 12-4 (page 12-6) provides assessment criteria for potential residual environmental effects. However, in its evaluation of the selected valued components (VCs), MGM describes the geographic extent of effects in some cases as “localized”; a term that is not defined in Table 12-4. Further, MGM does not address the frequency of the effect in its evaluation of the residual effects of the Project on VCs.

Request:

Please provide a revised Table 12-5, “Summary of Residual Project Effects” using the appropriate criteria from Table 12-4.

Response:

Table 12-5 (REVISED) has been attached.

Table 12-5 Summary of Residual Project Effects

Valued Component	Potential Residual Effects	Significance
Terrain, Soil and Permafrost	Medium to long term, confined to footprint, reversible and negligible in magnitude	Not Significant
Vegetation Communities	Medium to long term, confined to footprint, reversible and negligible in magnitude	Not Significant
Water Quality	Short term, localized, reversible and negligible in magnitude	Not Significant
Fish and Fish Habitat	Short term, localized, reversible and negligible in magnitude	Not Significant
Polar Bear	Short term, localized, reversible and negligible in magnitude	Not Significant

Table 12-5 (REVISED) Summary of Residual Project Effects

Valued Component	Potential Residual Effects	Significance
Terrain, Soil and Permafrost	Medium to long term, occur once, non-season specific, confined to Project area, reversible and negligible in magnitude	Not Significant
Vegetation Communities, including Rare Plants	Medium term to long term, occur once, season specific , confined to Project area, reversible and negligible in magnitude	Not Significant
Water Quality	Short term, occur intermittently, non-season specific, confined to the Project area, reversible and negligible in magnitude	Not Significant
Fish and Fish Habitat	Short term, occur intermittently, non-season specific, confined to Project area, reversible and negligible in magnitude	Not Significant
Polar Bear	Short term, occur intermittently, seasonal specific , confined to the Project footprint, reversible and negligible in magnitude	Not Significant

IR Number: NEB – 3.2

Source: National Energy Board

To: MGM

Preamble:

The MGM Project Description states that the Project scope for the Cuttings and Fluids Injection (CFI) facility includes:

- mobilization of equipment to the Project area;
- annual construction and equipment installation of the CFI facility at the Aput C-43 site;
- wellbore recompletion in preparation for injection;
- operation of the CFI facility to inject drill cuttings and fluid from MGM wells;
- demobilization of CFI facility equipment between drilling seasons;
- inspection and monitoring.

In the comments (Attachment 1) received by the NEB on 1 August 2008 from the Government of the Northwest Territories Department of Environment and Natural Resources (ENR), the territorial department provided a number of recommendations with respect to various MGM projects including the CFI Facility Project.

ENR makes recommendations with respect to:

- fuel storage (Section 1.1.3) – six (6) recommendations;
- air quality monitoring of well evaluations or flaring (Section 1.2.2) – two (2) recommendations;
- a waste management plan (Section 1.3.2.6) – one (1) recommendation with regard to preparing a “Waste Management Plan” that in turn incorporates a number of recommendations or suggestions with respect to its contents.
- minimum flight altitude (Section 2.1.2) – one (1) recommendation; and
- protection of wildlife and habitat (Section 2.1.3) – one (1) recommendation that in turn includes eight (8) mitigation measures; and
- bear-safety training (Section 2.1.4) – one (1) recommendation.

Request:

Please review the attached ENR comments and recommendations and provide:

- (a) comments and any appropriate commitments MGM would undertake in respect of ENR’s recommendations; and
- (b) MGM’s view regarding which recommendations might not apply to the CFI Project;
or
- (c) MGM’s justification for not implementing ENR recommendations.

NWT ENR Comment – 3.2.1: (From Attachment 1, Section 1.1.3 Recommendations: Fuel Storage and Spill Contingency Planning)

In the supplied Project Descriptions, the Proponent has proposed several potential alternate strategies for storage of fuel in support of these projects, including the use of land based storage tanks and/or facilities. ENR recommends that all fuel storage in support of all MGM projects be done in land-based facilities. In addition, where practical and feasible, refueling and fuel storage be restricted to designated bermed areas that are also:

- At a distance greater than 100m from any local high water mark,
- Not located in a drainage channel; and
- At a location that avoids steep grades to waterbodies.

Response:

MGM will comply with the EISC approval which provides for the use of single hulled barges for the first year of activity. As ENR is aware, there are no land based storage tanks and/or facilities currently available in the West Delta region with the exception of Camp Farwell for which Environment Canada has refused to issue access to. Other existing land based facilities are not suitably located geographically and impact the project logistics and environmental footprint. The likelihood of establishing land based facilities in the West Delta region in the near future is unlikely due to flooding and the dynamic nature of the region.

Land based fuel storage siting criteria will include placing a facility as far away as possible from the high water mark of any water body including ephemeral drainages and avoiding steep grades to waterbodies.

NWT ENR Comment – 3.2.2: (From Attachment 1, Section 1.1.3 Recommendations: Fuel Storage and Spill Contingency Planning)

In the case that MGM Energy Corp. continues to pursue the freezing-in of fuel barges as a bulk fuel storage option for the projects in question, ENR will expect that a more thorough and detailed review and assessment of the potential impacts of this method of storage is conducted, prior to the commencement of the projects' licencing/permitting.

Response:

MGM will be freezing in fuel barges as per EISC approval for the first year of activity.

NWT ENR Comment – 3.2.3: (From Attachment 1, Section 1.1.3 Recommendations: Fuel Storage and Spill Contingency Planning)

ENR recommends that the Proponent update the provided MACKENZIE DELTA EMERGENCY RESPONSE PLAN to include:

- Correct listings in the Regulatory Agencies section, *Regulatory Agency Emergency Contact List*. An incorrect Agency and Person name Phone Number is listed for GNWT. The NWT 24-Hour Spill Report Line is 867-920-8130. The Department is Environment and Natural Resources.
- Develop Site-specific Spill Contingency Plans for all locations where refined petroleum products will be stored, and that copies of the plans are distributed to

environmental monitors, operators and contractors in the Field. The site-specific Spill Contingency Plans should include, but not be limited to:

- An inventory of response and clean-up equipment;
- A site map with location of storage facilities, and the location of emergency equipment and spill response and clean-up equipment; and
- A cover page that clearly identifies: The NWT 24-Hour Spill Report Line; the name, job title and 24-hour telephone number for the person(s) responsible for activating the Spill Contingency Plan.

Response:

The Environment and Natural Resources reference within Regulatory Agency Emergency Contact List has been corrected.

MGM's Spill Contingency Plan is a corporate document that is regional in scope and is not intended to be re-written on a project by project basis. This plan includes a cover page clearly identifying the NWT 24-Hour Spill Report Line; the name, job title and 24-hour telephone number for the person(s) responsible for activating the Spill Contingency Plan and references an inventory of MDSRC response and clean-up equipment in Inuvik. MGM's Emergency Response and Spill Contingency Plans were approved by the NEB in October 2007.

NWT ENR Comment – 3.2.4: (From Attachment 1, Section 1.1.3 Recommendations: Fuel Storage and Spill Contingency Planning)

With respect to the design of fuel storage facilities, ENR recommends that the Proponent ensure that the most recent version of the National Fire Code of Canada is referenced (2005).

Response:

Noted

NWT ENR Comment – 3.2.5: (From Attachment 1, Section 1.1.3 Recommendations: Fuel Storage and Spill Contingency Planning)

ENR further recommends that the Proponent consult the *Environmental Code of Practice for Aboveground and Underground Storage Tank Systems Containing Petroleum and Allied Petroleum Products* (CCME 2003, including, but not limited to Sections 3, 4, 8 and 9).

Response:

MGM has consulted the referenced document (CCME 2003) in their preparation and planning for this program.

NWT ENR Comment – 3.2.6: (From Attachment 1, Section 1.1.3 Recommendations: Fuel Storage and Spill Contingency Planning)

ENR recommends that the proponent establish designated fuel storage and refueling areas that are:

- at a distance greater than 100 meters from any local high water mark, unless otherwise authorized by an inspector upon review of the specific location and conditions of concern;
- not located in a drainage channel; and
- at a location that avoids steep grades from waterbodies.

Response:

Frozen ground land based fuel storage and transfer sites (e.g., wellsite C-43 and the site proposed for the CFI facility) were selected on the basis of several different criteria including the criteria noted (Section 5.4.1.1 of the Ellice, Olivier, Langley Drilling, Completion and Testing Project: winters 2007-2008, 2008-2009, and 2009-2010 PD).

NWT ENR Comment – 3.2.7: (From Attachment 1, Section 1.1.3 Recommendations: Fuel Storage and Spill Contingency Planning)

In the case that fuel is transferred via barges or other seagoing vessels, ENR recommends that the *Arctic Waters Oil Transfer Guidelines* (Transport Canada, April 1997) be adhered to during loading and offloading.

Response:

It is MGM's understanding that the referenced document applies to the transfer of fuel between vessels. Fuel transfers between vessels are not an expected activity for this program. Fuel transfers between barge and fuel truck are detailed in Section 5.3.3.2 of the PD.

NWT ENR Comment – 3.2.8: (From Attachment 1, Section 1.2.2 Recommendations: Air Quality Monitoring)

ENR recommends that in the case well evaluations or flaring are conducting within the proposed activities, that the Proponent provide post-flaring reports for each of the well evaluations, which includes a comparison to the modeling assessments submitted.

Response:

Testing results and flare reporting are proprietary information which is typically provided to the NEB as a condition of the NEB's Approval to Alter Condition of a Well.

NWT ENR Comment – 3.2.9: (From Attachment 1, Section 1.2.2 Recommendations: Air Quality Monitoring)

ENR recommends that the Proponent provide clarification and appropriate reference to the "National Energy Board Flaring Guidelines" it references with respect to its planned flaring.

Response:

MGM will meet the NWT Ambient Air Quality Standard (ENR 2005) and for parameters not covered by NWT standards, the appropriate National Ambient Air Quality Objectives (NAAQO). Furthermore, MGM will follow the Alberta EUB Directive 60: "Upstream Petroleum Industry Flaring, Incinerating and Venting" to minimize or reduce air emissions from flaring during well testing.

NWT ENR Comment – 3.2.10: (From Attachment 1, Section 1.3.2.6 Recommendations: Waste Management)

The Proponent should prepare and submit a stand-alone **Waste Management Plan** for each referenced project to demonstrate that proper waste management planning is in place prior to the commencement of operations. The Plan should also demonstrate that authorization has been obtained for the use of off-site waste disposal facilities. The Plan should then be approved by the regulatory authority and be incorporated as a condition of the project licence, permit, or other regulatory authorization. The Waste Management Plan should include adherence to all the proponent's relevant waste management commitments, and also include/address, but not be limited to:

- The identification of waste storage and transport mitigative measures to prevent wildlife attraction. Whether garbage is stored for the purpose of on-site or off-site disposal (i.e. road or air transport), it must be stored in an airtight sealed container to prevent wildlife from being attracted to odors;
- The open burning of non-segregated municipal solid wastes (MSW) - 'camp waste' - is an unacceptable waste management option. The only wastes that are suitable for open burning are paper products, paperboard packaging and untreated wood wastes. Please consult the document titled *Municipal Solid Wastes Suitable for Open Burning* available at <http://www.enr.gov.nt.ca/eps/environ.htm>.
- With respect to the incineration of waste oil, it may contain metals and other contaminants. If waste oil is incinerated it should:
 - a) Be burned in an approved waste oil burner and the waste oil should be tested for contaminants as required in the NWT under the *Used Oil and Waste Fuel Management Regulations*; or
 - b) If it cannot be demonstrated that the waste oil meets the Used Oil and Waste Fuel Management Regulations previously referenced, it must be burned in an incineration device that is capable of meeting the emission limits established by the Canadian Council of Ministers of the Environment (CCME) under the Canada-wide Standards (CWS) for Dioxins and Furans and the CWS for Mercury Emissions; or
 - c) If the standards included in part a) and b) cannot be met, the waste should be safely stored and transported in sealed containers (odour free to prevent animal attraction) and safely transported to a facility that is a registered recycling or disposal facility for these wastes.
- A detailed description of wastewater treatment and disposal strategies that does not include the use of NWT based disposal facilities. This should include additional redundancy within its onsite/regional treatment and disposal plans that ensures adequate contingency for camp waste treatment and disposal. The proposed contingency to use the Inuvik Lagoon is not reasonable given the potential high volumes of waste to be produced.
- With respect to the use of NWT based community waste management infrastructure, the Plan should demonstrate:

- a) Written consent is received from the community that states it has been consulted on the types and quantities of waste proposed for disposal, and that the community is allowing the use of its waste management infrastructure,
- b) The community and/or facility has Land Use Permit and/or Water License authorizations that allow the disposal of waste sourced from outside industrial operations and camps, and
- c) Reference the community bylaws that facilitate the use of its waste management infrastructure sourced from outside industrial operations and camps.
- Detailed incineration Management Strategies. The **Waste Management Plan** should include detailed *Incineration Management Strategies* that demonstrate that the device and procedures selected are suitable to the waste stream types intended for treatment. Otherwise, significant environmental impacts, including the production of toxic compounds, will likely result. Incineration strategies should meet the emissions limits established under the Canada-wide Standards (CWS) for Dioxins and Furans (CCME 2001)¹⁵ and the CWS for Mercury Emissions (CCME 2000)¹⁶. These *Incineration Management Strategies* should also include:
 - a) A description of waste streams intended for incineration;
 - b) Selected incineration technology and rationale for selection (the minimum requirement to accommodate complex waste streams should be a dual-chamber, controlled-air incinerator);
 - c) A description of recycling and waste segregation plans that control waste entering the incinerator;
 - d) Operator training and qualifications, and the use of trained and designated operators;
 - e) Procedures for operation and maintenance, including record-keeping (i.e. completion of burn cycle and maintenance logs, and recording of the weight of each waste load charged to the incinerator);
 - f) A reporting requirement to summarize the tracking and record-keeping component;
 - g) Weigh scales to record the weight of each load charged to the incinerator;
 - h) Incineration residual disposal procedures (If incinerator bottom and/or fly ash are targeted for disposal in the NWT, it must be tested prior to disposal to ensure that it meets the criteria specified in the NWT Environmental Guideline for Industrial Waste Discharges¹⁷. Incineration ash can be contaminated with toxic compounds and by-products such as dioxins and furans and should therefore be tested to ensure that it is disposed of in an appropriate and approved manner).

Response:

Sections 5.6.1.1 (Wastewater Treatment) and 5.6.1.2 (Solid Waste Management) of the PD provide details of MGM's waste management practices for this program. MGM also has a current year Waste Management Plan (revised July 2008). The Waste Management Plan is a fixed business document, and is not intended to be re-written on an individual project basis.

NWT ENR Comment – 3.2.11: (From Attachment 1, Section 2.1.2 Discussion)

The Proponent states in the Executive Summary, Disturbance of foraging bears "Bear overflight guidelines will be determined through consultation with ENR". ENR recommends the proponent adhere to the recommended environmentally acceptable minimum flight altitudes provided by the Inuvialuit game council.

Response:

MGM will adhere to Transport Canada's regulations concerning minimum flight altitude and the Inuvialuit Game Council Overflight Guidelines.

NWT ENR Comment – 3.2.12: (From Attachment 1, Section 2.1.3 Recommendations)

To minimize the disturbance to wildlife and wildlife habitat and increase the protection of wildlife and field personnel ENR recommends the following additional mitigation measures be implemented.

The Proponent shall adhere to the following:

- Combine aircraft flights with concurrent MGM projects to reduce the number of flights in the project area;
- Conduct Fall grizzly bear denning surveys in collaboration with ENR
- If caribou approach or are encountered within 500m of project activities, the Proponent should cease operations until caribou are no longer with the range;
- Instruct Pilots to avoid all wildlife when accessing and/or transporting crews to selected field operation sites;
- Do not feed or harass wildlife;
- Maintain a minimum distance of 1.5 km between any project activities and observed/known peregrine falcon nesting sites from April 15 to September 15;
- Avoid any species-at-risk that are encountered during the course of this land use operation and the Proponent will minimize all activity so as to not disturb these animals; and,
- Have, and keep up to date, a record of wildlife sightings that is submitted to the nearest Renewable Resource Officer upon completion of the field season.

Response:

Section 12.4 and Table 12-3 of the PD provides details of proposed mitigation and the anticipated environmental effects to wildlife and wildlife habitat.

Specifically, MGM acknowledges that the following mitigations cited as additional already have been committed to in the PD:

- i) Combine aircraft flights with concurrent MGM projects to reduce the number of flights in the project area;
- ii) Conduct Fall grizzly bear denning surveys in collaboration with ENR;
- iii) Do not feed or harass wildlife; and
- iv) Avoid any species-at-risk that are encountered during the course of this land use operation and the Proponent will minimize all activity so as to not disturb these animals.

MGM provides the following comments regarding the other additional mitigations recommended by ENR.

- i) If caribou approach or are encountered within 500m of project activities, the Proponent should cease operations until caribou are no longer with the range – *Caribou were not considered as a VC for this program. The West Langley program area is generally unsuitable caribou habitat. In the unlikely event that a caribou is encountered, mitigation measures that may apply include avoiding contact, allowing animal(s) to pass, and no feeding and no harassing wildlife.*
- ii) Instruct Pilots to avoid all wildlife when accessing and/or transporting crews to selected field operation sites – *MGM will adhere to Transport Canada regulations (i.e., minimum flight altitude of 1000') and Inuvialuit Game Council Overflight guidelines as stated in Sections 5.3.4.4 and 5.3.5.4.*
- iii) Maintain a minimum distance of 1.5 km between any project activities and observed/known peregrine falcon nesting sites from April 15 to September 15 – *MGM's activities will not coincide with the period of sensitivity referenced.*
- iv) Have, and keep up to date, a record of wildlife sightings that is submitted to the nearest Renewable Resource Officer upon completion of the field season – *MGM staff and contractors are required to follow the Bear Encounter Response Guidelines (ENR 2005) and MGM's corporate HSE Assurance Plan which includes a Bear Protocol. The Bear Protocol (page 2 Item 7) specifies after all sightings and interactions with bears during operations, a Bear Sighting Report shall be completed, and the report will be forwarded to the Area Base Office, Local HTC and ENR. MGM does not track other wildlife sightings.*

NWT ENR Comment – 3.2.13: (From Attachment 1, Section 2.1.4 General Comments)

Provide all field personnel with bear-safety training prior to field operations. This is both a wildlife and a safety issue. If all field personnel receive this training and learn how to react to bears, the number of nuisance bears killed should decrease.

Response:

All MGM staff and contractors are required to follow the Bear Encounter Response Guidelines and Bear Protocol within MGM's Corporate HSE Assurance Plan. These documents specify that Bear Awareness training is required and that Bear Awareness orientation is conducted at commencement of employment or prior to the start of operations.

IR Number: NEB – 3.3

Source: National Energy Board

To: MGM

Preamble:

Indian and Northern Affairs Canada (INAC), in its letter to the NEB dated August 29, 2008 (Attachment 2), provided the following comment:

- [The proposed MGM Cuttings and Fluids Injection Facility at Aput C-43] is a planned 3 year injection program. Has MGM researched other sites that would provide a rationale that supports the use of a successional seasonal icepad versus a constructed insulated gravel pad at PetroCanada L-46? [INAC's] internal research shows that L-46 is 4 m higher than Aput thus making it less likely to flood seasonally; this offers other alternatives related to logistics. Sec 8.1 [the MGM Project Description] does not explain research methodology into disqualification of other local sites.

Request:

Please provide:

- (a) the MGM research methodology used to disqualify other local sites, and
- (b) a rationale that supports the use of a successional seasonal icepad versus a constructed insulated gravel pad at PetroCanada L-46.

Response:

- (a) MGM's research focused on local sites containing i) wellbores owned by MGM that were capable of receiving injected cuttings and fluid ; ii) wellbores that did not contain economic quantities of oil and gas.
- (b) The rationale that supports the use of a successional seasonal icepad versus constructed insulated gravel pad at PetroCanada L-46 include:
 - i. MGM does not have surface or subsurface rights for the PetroCanada L-46 site.
 - ii. MGM's review of the downhole and reservoir information of L-46 concluded that this location is a poor candidate as a result of the combined geology, reservoir, and injection zone quality.
 - iii. MGM does have surface and subsurface rights to C-43 and it has confirmed that the wellbore design and reservoir meets or exceeds the siting criteria for the intended purpose.

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