

Expert Report of David Estrin

APPENDIX J

SABLE GAS JOINT REVIEW PANEL 46 RECOMMENDATIONS

Appendix J

Recommendations

RECOMMENDATION 1

The Panel recommends the following conditions for any approval of the Offshore Pipeline that may be granted.

The Proponents shall submit to the National Energy Board, for review, at least one hundred and eighty (180) days prior to the commencement of installation:

- (a) the pipeline design data and the final pipeline design, including, but not limited to:
 - (i) the final Offshore Pipeline Design Basis Memorandum;
 - (ii) detailed materials specifications;
 - (iii) any relevant supporting design studies;
 - (iv) limits of unacceptable spans found during installation, testing and operation, and mitigation measures to be used if an unacceptable span was to develop; and
 - (v) construction schematics.
- (b) a list of the regulations, standards, codes and specifications used in the design, construction and operation of the pipeline from the Thebaud platform to the Goldboro gas plant, indicating the date of issue;
- (c) reports providing results and supporting data from any geotechnical field investigations for the evaluation of:
 - (i) the potential for slope instability;
 - (ii) the geotechnical and geological hazards and geothermal regimes which may be encountered during installation and operation of the facilities; and
 - (iii) the special designs and measures required to safeguard the pipeline.
- (d) the pipeline route, detailed on appropriate scale maps, indicating all seabed, geotechnical and other features to a sufficient depth and resolution.

The Proponents shall not start any pipeline installation activity until the final pipeline design has been approved by the National Energy Board.

Unless the National Energy Board otherwise directs, the Proponents shall submit, at least thirty (30) days prior to the commencement of construction, a detailed construction schedule. The Proponents shall provide the National Energy Board and all other appropriate regulatory authorities with regular updates on the progress of construction activities and with any changes in the schedule as construction progresses.

The Proponents shall submit to the National Energy Board, for review, at least thirty (30) days prior to the commencement of construction, all construction manuals, including:

- (a) a pipe laying and pipe trenching manual (including, but not limited to, other pipeline construction activities such as pipeline stabilization or anchoring);
- (b) a construction safety manual (containing appropriate procedures for the reporting of any incidents to the NEB);
- (c) a pipeline emergency response procedures manual; and

- (d) all other manuals relevant to construction, installation and operation of the subsea gathering line from the Thebaud Platform to the Goldboro Gas Plant.

Unless the National Energy Board otherwise directs, the Proponents shall, during construction, for audit purposes, maintain at each construction site a copy of the welding procedures and non destructive testing procedures used on the Project together with all supporting documentation.

The Proponents shall file with the National Energy Board, no later than one hundred and eighty (180) days after completion of the pipe laying, an as-laid pipeline survey report and maps.

The Proponents shall submit to the National Energy Board, for review, at least thirty (30) days prior to "Leave to Open", an operation and maintenance manual including, but not limited to, inspection and remedial correction procedures for seabed movements causing spanning.

If the National Energy Board determines that the pipeline design assumptions, relative to the pipeline burial, pipeline stability and seabed changes, cannot be confirmed, the Proponents shall submit to the National Energy Board, for review, at least one hundred and eighty (180) days prior to "Leave to Open", a pipeline in-place monitoring program. This program shall include all the inspection procedures and schedules, and criteria that will initiate specific inspection and remedial action procedures (such as storm conditions and limiting span lengths). This program will also identify all equipment required on-site or near-site for remedial action procedures, as well as any such equipment that has to be brought from remote locations. The program shall include the procedures for reporting incidents to the National Energy Board.

The Certificate for the subsea pipeline facilities shall be issued to and held by Mobil Oil Canada Ltd. pending the establishment of the legal operating entity for SOEP. Upon establishment of that legal entity, the Proponents shall apply for permission to transfer the Certificate so that the pipeline facilities, in respect of which the Certificate is issued, shall be held and operated by that entity.

The Panel recommends that unless the National Energy Board otherwise directs, any certificate issued should expire on 31 December 2000, unless the construction and installation of the offshore pipeline facilities has commenced by that date.

RECOMMENDATION 2

The Panel recommends the following conditions for any approval of the gas plant that may be granted.

The Proponents shall cause the gas plant facilities to be designed, manufactured, located, constructed and installed in accordance with those specifications, drawings, and other information set forth in the application, or as otherwise adduced in evidence by the Proponents before the Panel, except as varied in accordance with paragraph 1(b) hereof.

At least thirty (30) days prior to the commencement of any relevant construction activities, the Proponents shall submit to the National Energy Board, for review, an abbreviated design information package of the gas plant containing:

- (a) process flow diagrams, with temperatures, pressures, mass balances and capacity, as well as the energy requirements of compressors, heaters and turbo-expanders;
- (b) piping and instrumentation diagrams for all plant systems; and
- (c) the codes, standards, and material specifications, to be used for all major equipment and piping;

Design and specification changes shall be tabled for review and consideration by the National Energy Board at least 30 days prior to implementation.

The Proponents shall design, fabricate and install all components of the gas plant in accordance with applicable codes and standards in the Province of Nova Scotia.

The Proponents shall, at least ninety (90) days prior to the proposed date for the commencement of construction of the gas plant authorized by any order issued, file with the National Energy Board for its review:

- (a) the procedures for project quality assurance and quality control in the design, fabrication and construction of the gas plant, including audit and corrective action procedures; and
- (b) the construction pressure piping and pressure vessel, non-destructive and pressure testing program including audit and corrective action procedures.

The Proponents shall review with regulatory authorities the results of all plant Hazard and Operability Studies (HAZOP) within thirty (30) days of the completion of the studies. The Goldboro Gas Plant HAZOP review shall occur at least thirty (30) working days before final design is completed;

The Proponents shall, at least sixty (60) days prior to the commencement of construction, file with the National Energy Board a detailed construction schedule or schedules identifying all major construction activities and shall notify the National Energy Board of any modifications to the schedule or schedules at least ten (10) days before they occur; and

The Proponents shall prepare and submit for approval to the National Energy Board a construction safety manual pursuant to section 26 of the *Onshore Pipeline Regulations*.

The Proponents shall, prior to applying for "Leave to Open" for any segment of the gas processing facilities authorized by any Order issued, file with the National Energy Board for its review:

- (a) a detailed explanation of the programs for monitoring internal and external conditions of the pressure retaining equipment in the gas plant, having particular regard to those parts of the gas plant with the potential to cause danger to the employees, the public and the environment; and
- (b) a detailed training program based, at least in part, on the plant's process hazard analysis, wherein competency of the employees can be verified before assignment of the task.

The Proponents shall at least sixty (60) days prior to turn-over or commissioning of any gas plant equipment, submit for to the National Energy Board for review:

- (a) the turn-over, commissioning and start-up procedures and schedules for all plant equipment, including information regarding the number of persons on site during each of the commissioning and start-up procedures; and
- (b) the turn-over, or commissioning safety management policies and procedures, showing how the safety of all employees and the public will be ensured during the commissioning phases of the gas plant.

The Proponents shall submit to the National Energy Board for approval, at least sixty (60) days prior to commencing plant operations:

- (a) an Operations and Maintenance Manual pursuant to section 48 Part VII of the *Onshore Pipeline Regulations* which shall include all the safe work procedures required to maintain, commission, start-up, operate and shutdown all equipment in, and associated with, the gas plant;
- (b) a gas plant specific emergency response procedures manual; and
- (c) contingency plans for hydrocarbon releases to the atmosphere within the gas plant and related facilities.

Any certificate issued shall expire on 31 December 2000 unless the construction and installation of the Goldboro gas plant has commenced by that date.

The operators of the Goldboro gas plant shall ensure that the plant is operated within the environmental codes and standards approved or adopted by the Province of Nova Scotia.

The operators of the Goldboro gas plant shall at least once per quarter, with at least 24 hours notice, allow representatives of the Nova Scotia Department of the Environment, if necessary, to inspect, audit, or verify calibration of those metering measuring and sample collection devices.

The operators of the Goldboro gas plant shall ensure that all modifications, repairs and expansions regulated by the Canada Labour Code conform to the applicable codes or standards that are approved or adopted by the Province of Nova Scotia.

RECOMMENDATION 3

The Panel recommends to the National Energy Board that the SOEP operating entity be designated as a Group 2 Company for the purposes of regulation under the NEB Act. The Panel also recommends that SOEP be required to keep its book of accounts pursuant to the code of accounts prescribed in the *Uniform Accounting Regulations* and to file audited annual financial statements.

RECOMMENDATION 4

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents:

- a) develop a statistically and scientifically valid Environmental Effects Monitoring program to ensure that mitigative measures are effective and to confirm predicted environmental effects with respect to discharges of drilling wastes and produced water including sublethal effects of produced water, flocculation of waste and the creation of chlorinated hydrocarbons within the 500 metre radius of the drilling platforms;
- b) further explore the alternatives to the use of OBMs and commit to considering and implementing the most environmentally and geotechnically sound options when available;
- c) consider and implement new waste treatment during the lifetime of the Project which is proven to be environmentally and technically superior to the initial methodology;
- d) explore alternative techniques other than chlorination for treatment of liquid domestic wastes from the Project facilities, prior to their release into the marine environment; and
- e) in conjunction with compliance monitoring requirements for the disposal of hydrostatic test water for the off shore pipelines, at least 30 working days prior to the commencement of any hydrostatic testing portion of the Project, submit to the appropriate regulatory authorities for approval detailed information regarding hydrostatic testing including:
 - (i) the source selected for hydrostatic test water;
 - (ii) the location of the hydrostatic test water;
 - (iii) the type and quantity of antioxidant to be used, including a justification for selecting this particular antioxidant;
 - (iv) site-specific mitigative and restorative measures to be employed as a result of consultations with regulatory agencies; and
 - (v) evidence to demonstrate that all issues raised by regulatory agencies have been adequately addressed, including all necessary updates to the environmental assessments where deficiencies have been identified.

RECOMMENDATION 5

The Panel recommends that at least 60 working days prior to the commencement of construction of the nearshore pipeline in Betty's Cove, the Proponents submit to the appropriate regulatory authorities for approval, additional information regarding the proposed specific routes of the subsea pipeline and the specific installation method for the landfall point. The additional information shall set out:

- (a) the results of the sediment sampling program along the specific route into Betty's Cove;

- b) an underwater habitat assessment along the specific route into Betty's Cove;
- c) an environmental issues list identifying all relevant effects of the selected route on marine biological Valued Environmental Components;
- d) the associated mitigation measures to render those environmental effects insignificant; and
- e) the details on the selected installation method for the landfall point.

RECOMMENDATION 6

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents conduct a minimum of one full year of baseline water and sediment quality monitoring prior to any trenching activity in Country Harbour. Furthermore, that the results of this program and those of the sediment modelling study for Country Harbour be reviewed by both the SOEP-Fisheries Liaison Committee and the Department of Fisheries and Oceans, and any issues raised be addressed prior to commencement of trenching activity.

RECOMMENDATION 7

The Panel recommends that, to adequately assess the potential for impacts of tainting on the fishing industry, the appropriate regulatory authorities ensure that the Proponents include a taint test as part of their Environmental Effects Monitoring (EEM) program.

RECOMMENDATION 8

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents remove Country Harbour from consideration for base sites, and that the final selections be made as expeditiously as possible.

RECOMMENDATION 9

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents undertake the following: design and implement an acoustic monitoring program to measure noise (source) levels of Project activities, transmission losses in the Project area, and received levels in key locations, such as the Gully and nearby Logan Canyon. This should be done by, or under the direction of, an experienced third party, as part of their Environmental Effects Monitoring program planned for the Project.

RECOMMENDATION 10

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents, to the extent possible, conduct pipeline laying activity at Country Harbour and Country Island outside the mid-May to mid-August nesting season, particularly until the appropriate baseline data has been collected and analyzed on roseate tern population in this area.

RECOMMENDATION 11

The Panel recommends that the appropriate regulatory authorities ensure that, at least six months prior to the commencement of any fabrication or construction activity, the Proponents submit the Code of Practice to protect the Gully, as part of their final Environmental Protection Plan. The Code should include details on proposed Environmental Effects Monitoring (EEM) programs and mitigation procedures, as they specifically relate to the Gully and be in accordance with the requirements of the appropriate regulatory authority relevant to the activity. To obtain the baseline data necessary for EEM programs, the Proponents should initiate or contribute to basic physical-biological oceanographic research in the Gully.

RECOMMENDATION 12

The Panel recommends that the appropriate regulatory authorities ensure that, at least six months prior to the commencement of any fabrication or construction, the Proponents submit the Code of Practice to protect Sable Island, as part of its final Environmental Protection Plan. The plan must include details on proposed Environmental Effects Monitoring programs and mitigation procedures, as they specifically relate to Sable Island and be in accordance with the requirements of the appropriate regulatory authority relevant to the activity.

RECOMMENDATION 13

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents collect, analyze, and report data pertaining to storm and extreme events. The Panel recommends that the Proponents comply with the Conductivity - Temperature - Depth (CTD) profile provision of the Physical Guidelines.

RECOMMENDATION 14

The Panel recommends that the Proponents submit to DFO, as expeditiously as possible, all information relevant to impacts on navigation including; drill sites, standby vessel base locations and potential traffic patterns.

RECOMMENDATION 15

With respect to Environmental Effects Monitoring programs for offshore facilities, the Panel recommends that at least six months prior to the commencement of any fabrication or construction activity requiring regulatory approval, in accordance with the requirements of the appropriate regulatory authority relevant to the activity, the Proponents shall submit to those authorities the final Environmental Protection Plan, which shall include or address the following factors:

- (a) Environmental Policy;
- (b) Standards and codes of practice, including the Code of Practice to protect Sable Island and the Gully;
- (c) Mitigation/operating procedures (construction, drilling, production, decommissioning and abandonment);
- (d) Environmental education, training and orientation procedures/programs;
- (e) Chain of command (mechanisms for environmental decision making);
- (f) Environmental Effects Monitoring practices and reporting, including detailed information on every monitoring program included in or referred to in its Application, in its Undertakings made to other government agencies, and in commitments made by the Proponents in evidence before the Joint Review Panel;
- (g) Environmental Compliance Monitoring practices and reporting;
- (h) Reference Laws, Regulations, Guidelines, Licences, Permits and Approvals;
- (i) Waste Management Plan;
- (j) Atmospheric Release Management Plan;
- (k) Effluent Release Management Plan;
- (l) Accidental Discharge Contingency Plan, including spill prevention methodology;

- (m) Relevant contractual commitments, including special environmental clauses;
- (n) Environmental inspection and audit procedures;
- (o) Special conservation plans, where appropriate; and
- (p) Environmental Management Continuous Improvement.;

The Proponents shall file with the appropriate regulatory authorities a post-construction environmental report within six months of the in-service date. The post-construction environmental report shall set out the environmental issues that have arisen and shall:

- (a) indicate the issues which are resolved and unresolved; and
- (b) describe the measures SOEP proposes to take with respect to the unresolved issues;

The Proponents establish, with regard to waste discharges in the offshore marine environment, criteria for tolerance of contamination at the platform site, in relation to recognized Maximum Acceptable Effects Levels (MAELS), in consultation with CNSOPB, before drilling commences;

The Proponents shall, based on consultations within SEEMAG and with respect to specific VECs, :

- (a) examine the potential impacts of produced water and the potential to cause tainting in identified VECs;
- (b) monitor the accumulation and movement of drill wastes around the platforms closest to the Gully; and
- (c) monitor traffic and noise-related Project effects on marine mammals, particularly the northern bottlenose whale.

RECOMMENDATION 16

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents prepare detailed Contingency Plans (as part of the Environmental Protection Plan) which focus on spill prevention and response, and strategies for cleaning up the marine and terrestrial environments. These plans should be submitted prior to the commencement of any fabrication or construction activity requiring regulatory approval in accordance with the requirements of the appropriate regulatory authority relevant to the activity.

RECOMMENDATION 17

The Panel recommends that the Proponents commit to empowering their Environmental Inspectors with the authority to terminate any onshore pipeline construction activities which impact negatively on fish and fish habitat.

RECOMMENDATION 18

The Panel recommends the following conditions for any approval of the NGL pipeline that may be granted.

The Proponents shall submit to the appropriate regulatory authority at least six months prior to the commencement of any fabrication or construction activity, the details of the proposed specific route for the NGL pipeline, and shall include:

- (a) the results of all pre-construction surveys to identify special status species/habitat along the proposed corridor, including specific measures to be implemented;
- (b) an environmental issues list identifying all relevant effects of the selected route; and
- (c) the associated mitigation measures to render those environmental effects insignificant.

The Proponents shall, at least 30 working days prior to the commencement of construction of the NGL pipeline, submit to the appropriate regulatory authorities for approval, additional information regarding the stream crossings. The additional information shall set out:

- (a) construction designs of the crossing;
- (b) proposed duration of the crossing;
- (c) in-stream timing restrictions identified by regulatory agencies;
- (d) erosion and sediment control plan;
- (e) site-specific mitigative and restorative measures to be employed as a result of consultations with regulatory agencies;
- (f) if a directional drilling method is used, the detailed drilling fluid plan addressing the methods of drilling fluid containment and storage, and specific methods for disposing of and/or recycling of the drilling fluids;
- (g) if blasting is required, the blasting plan, including comments from the Department of Fisheries and Oceans;
- (h) evidence to demonstrate that all issues raised by regulatory agencies have been adequately addressed, including all necessary updates to the environmental assessments where deficiencies have been identified;
- (i) evidence to demonstrate that the proposed construction method and site specific mitigative and restorative measures are in compliance with federal and provincial legislation; and
- (j) a wet-weather shut-down policy; and,
- (k) the status of approvals, including environmental conditions.

The Proponents shall also, at least 30 working days prior to the commencement of construction of the NGL pipeline, submit to the appropriate regulatory authorities for approval, additional information regarding the treatment method to deal with acid drainage and specific mitigative measures to be implemented at stream crossings. The additional information shall set out for each stream crossing to be affected:

- (a) name and location of the stream;
- (b) the selected treatment method of the runoff water;
- (c) the proposed "Canadian Water Quality Guideline" values for specific use to be adhered to;
- (d) site-specific mitigative and restorative measures to be employed as a result of consultations with regulatory agencies;
- (e) evidence to demonstrate that all issues raised by regulatory agencies and other interested parties have been adequately addressed, including all necessary updates to the environmental assessments where deficiencies have been identified; and
- (f) status of approvals, including environmental conditions.

The Proponents file with the appropriate regulatory authorities a post-construction environmental report within six months of the in-service date for the SOEP Project. The post-construction environmental report shall set out the environmental issues that have arisen and shall:

- (a) indicate the issues resolved and those unresolved; and
- (b) describe the measures SOEP proposes to take in respect of the unresolved issues.

RECOMMENDATION 19

The Panel recommends that SOEP, at least 30 working days prior to the commencement of construction for the crossing of the Strait of Canso, submit to the appropriate regulatory authorities for approval, additional information regarding this crossing. The additional information shall set out the following:

- (a) proposed duration of the crossing;
- (b) watercourse timing restrictions identified by regulatory agencies;
- (c) site-specific mitigative and restorative measures to be employed as a result of consultations with regulatory agencies;
- (d) if blasting is required, the blasting plan, including comments from the Department of Fisheries and Oceans;
- (e) evidence to demonstrate, in the form of a risk assessment, that the proposed construction method and site-specific mitigative and restorative measures are in compliance with federal and provincial legislation;
- (f) status of approvals, including environmental conditions; and
- (g) the complete set of sediment data for all measured contaminants obtained during the 30 and 31 May 1997 sampling program for the Strait of Canso.

RECOMMENDATION 20

The Panel recommends that the Proponents, at least 30 days prior to the commencement of NGL pipeline construction, the results of the field program identifying possible locations of acid generating bedrock and the proposed methods of avoiding disturbing those areas.

RECOMMENDATION 21

The Panel recommends that SOEP revisit its use of the upper limit of the Nova Scotia Noise Guidelines as the design criteria for the Goldboro gas plant. The Panel further recommends, as part of any regulatory approval, a condition that requires the Proponents to carry out regular noise monitoring at the natural gas plant, and that SOEP add plant noise to its Environmental Issues List.

RECOMMENDATION 22

The Panel recommends that the Province of Nova Scotia examine options for an industrial strategy that would include hydrocarbon-based development. Given its stated commitment to future Nova Scotia development, SOEP should be expected to provide input to this process.

RECOMMENDATION 23

The Panel recommends a comprehensive research program that examines and designs ways and means to enhance local skills and business opportunities and to prepare Nova Scotia for further offshore development. The Panel recommends that SOEP work closely with the federal and Nova Scotia governments and other key stakeholders to examine the need for research in these respects, and set an appropriate direction for research and development programs.

RECOMMENDATION 24

The Panel recommends that prior to any construction, SOEP provide the CNSOPB with a plan that details the employment and training review process and the specific mitigative measures to respond to unsatisfactory performance on the part of its contractors.

RECOMMENDATION 25

The Panel recommends that CNSOPB place a condition on SOEP, requiring the development and implementation of a specific training plan for gas development and production workers.

RECOMMENDATION 26

The Panel recommends that the Province of Nova Scotia take the lead to ensure that the selection process for service and supply bases is reviewed by the Benefits Advisory Committee (BAC). The BAC should issue a public report on the rationale for all its recommendations.

RECOMMENDATION 27

The Panel recommends that once a decision on supply and service bases has been taken, SOEP be required to consult with pertinent government authorities on strategies for mitigating accommodation impacts, such as providing additional temporary construction camps.

RECOMMENDATION 28

The Panel recommends that SOEP be prepared to sell gas to shippers at the Goldboro gas plant whether or not the shipper has entered into a Transportation Agreement with M&NPP.

RECOMMENDATION 29

The Panel recommends that M&NPP be required to file with the NEB, prior to the commencement of construction, the executed Backstop Agreement.

RECOMMENDATION 30

The Panel recommends to the NEB that Maritimes and Northeast Pipeline Management Ltd. be designated as a Group 1 Company for the purposes of regulation under the NEB Act.

RECOMMENDATION 31

The Panel recommends to the NEB the approval of a forward test year cost of service methodology for M&NPP.

RECOMMENDATION 32

The Panel recommends to the NEB the use of a 25 percent common equity ratio by M&NPP. The Panel also recommends that the return on equity for the pipeline for the first five years of the Project be set at 13 percent.

RECOMMENDATION 33

The Panel recommends to the NEB that the provisions respecting toll design and laterals as contained in the "Joint Position on Tolling and Laterals" as set out in Appendix V of this Report, be approved.

RECOMMENDATION 34

The Panel recommends that construction plans be prepared for each watercourse crossing site in consultation with the appropriate regulatory agencies. These studies should include a consideration of all salmon rivers which will be crossed by the pipeline. The construction plans may refer to standard drawings or specifications as appropriate, but would as a minimum include consideration of erosion and sedimentation control, blasting requirements, habitat restoration and site restoration as required. The plans must be completed at least 60 days prior to construction and be provided to interested parties for comment, as well as being submitted for regulatory review.

RECOMMENDATION 35

The Panel recommends a condition requiring M&NPP at least 60 days prior to construction to prepare a report on the scheduling of water crossings in cooperation with appropriate regulatory authorities. The report must discuss back-up measures to resolve potential problems. The report must be available to all interested parties who request a copy.

Furthermore, the Panel recommend that, at least 30 working days prior to the commencement of construction of the pipeline, M&NPP submit to the appropriate regulatory authorities for approval, additional information regarding the stream crossings. The additional information shall set out:

- (a) the construction designs of the crossing;
- (b) proposed duration of the crossing;
- (c) in-stream timing restrictions identified by regulatory agencies;
- (d) an erosion and sediment control plan;
- (e) the site-specific mitigative and restorative measures to be employed as a result of consultations with regulatory agencies;
- (f) if a directional drilling method is used, the detailed drilling fluid plan addressing the methods of drilling fluid containment and storage, and specific methods for disposing of and/or recycling of the drilling fluids;
- (g) if blasting is required, the blasting plan, including comments from DFO;
- (h) the evidence to demonstrate that all issues raised by regulatory agencies have been adequately addressed, including all necessary updates to the environmental assessments where deficiencies have been identified;
- (i) the evidence to demonstrate that the proposed construction method and site specific mitigative and restorative measures are in compliance with federal and provincial legislation; and
- (j) the status of approvals, including environmental conditions.

RECOMMENDATION 36

The Panel recommends that at least 30 days prior to the commencement of construction, M&NPP file with the NEB the results of the acid generating rock studies, including any locations which would be affected by construction, the proposed mitigation measures, monitoring requirements and the results of consultation with provincial authorities.

The Panel recommends the following conditions for any approval of M&NPP that may be granted.

M&NPP shall, at least 30 working days prior to the commencement of construction of the pipeline, submit to the NEB for approval, additional information regarding the treatment method to deal with acid drainage and specific mitigative measures to be implemented at stream crossings. The additional information shall set out for each stream crossing to be affected:

- (a) the name and location of the stream;
- (b) the selected treatment method of the runoff water;
- (c) the proposed “Canadian Water Quality Guideline” values to be adhered to;
- (d) the site-specific mitigative and restorative measures to be employed as a result of consultation with regulatory agencies;
- (e) the evidence to demonstrate that all issues raised by regulatory agencies and other interested parties have been adequately addressed, including all necessary updates to the environmental assessments where deficiencies have been identified; and
- (f) the status of approvals, including environmental conditions.

RECOMMENDATION 37

To confirm that specific issues have been adequately addressed, the Panel recommends that, at least six months prior to the commencement of any construction activity requiring regulatory approval, M&NPP submit to the NEB for approval the final Environmental Protection Plan. Details of the proposed specific route for the pipeline should also be filed at that time, and shall include:

- (a) the results of all pre-construction surveys to identify special status species/habitat along the proposed corridor, including specific measures to be implemented;
- (b) an environmental issues list identifying all relevant effects of the selected route; and
- (c) the associated mitigation measures to render those environmental effects insignificant.

To ensure that post-construction environmental issues have not arisen, the Panel also recommends that the Proponents file with the NEB a post-construction environmental report within six months of the in-service date for the Project. The post-construction environmental report shall set out the environmental issues that have arisen and shall:

- (a) indicate the issues resolved as well as unresolved; and
- (b) describe the measures M&NPP proposes to take in respect of the unresolved issues.

RECOMMENDATION 38

The Panel recommends that M&NPP develop the Environmental Protection Plan in consultation with government agencies, stakeholder groups, interested parties and landowners.

The Panel also recommends that the NEB set a condition requiring M&NPP to implement an environmental compliance and monitoring program which would include the filing of post construction environmental reports to address Project-related environmental issues.

RECOMMENDATION 39

The Panel recommends that the operations, emergency response and environmental protection manuals be developed in consultation with relevant agencies, stakeholders and the public and be filed with the NEB as a condition of any approval.

RECOMMENDATION 40

The Panel recommends that the appropriate regulatory authorities ensure that M&NPP take all reasonable steps to avoid fragmenting natural and forested areas. The Panel recommends that the fragmentation of natural and forested areas be included in the M&NPP Issues List. This will require consideration and follow-up on steps to be taken at the detailed route design and construction stages.

RECOMMENDATION 41

The Panel recommends that M&NPP consult with the Provinces of New Brunswick and Nova Scotia on a monitoring approach for employment, training and procurement, and that an agreed approach be included as a condition of any Project approval .

RECOMMENDATION 42

The Panel recommends that the appropriate regulatory authorities ensure that the Proponents, at least six months prior to construction, submit a traffic study for the Goldboro area to the Province of Nova Scotia, the Municipality of the District of Guysborough and the NEB.

RECOMMENDATION 43

The Panel recommends that the governments of Canada, Nova Scotia and New Brunswick explore mechanisms for monitoring gas prices which would allow negotiations of prices in the market to occur, but which would assure parties that the results of those negotiations would not be disadvantageous to Canadian buyers. The price monitoring committee formed by the signatory governments to the October 31, 1985 Agreement on Natural Gas Prices and Markets might serve as a useful model.

RECOMMENDATION 44

The Panel recommends that the CNSOPB, Nova Scotia, New Brunswick and the NEB work together to set common standards and an integrated gas emissions monitoring process.

RECOMMENDATION 45

The Panel recommends that the appropriate regulatory authorities condition their approvals to require the Proponents to submit a written protocol or agreement spelling out Proponent Aboriginal roles and responsibilities for cooperation in studies and monitoring.

RECOMMENDATION 46

The Panel recommends that the appropriate regulatory authorities proceed with all necessary approvals for SOEP and M&NPP without further delay.