



**STATE OF CONNECTICUT**  
**DEPARTMENT OF ENVIRONMENTAL PROTECTION**

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Arthur J. Rocque, Jr.  
*Commissioner*

August 19, 2002

Mortimer A. Gelston, Chairman  
Connecticut Siting Council  
10 Franklin Square  
New Britain, Connecticut 06051

RE: Eastern Long Island Expansion Gas Pipeline  
Iroquois Gas Transmission System  
Milford, Connecticut  
Docket No. 226

Dear Mr. Gelston:

Staff of this department have reviewed the above-referenced application for a Certificate of Environmental Compatibility and Public Need. The applicant proposes to construct a 20" diameter pipeline from a point 8,600' south of Charles Island in Milford, at which point the pipeline would access the existing Iroquois Gas pipeline, and run from a tap structure constructed at that location southeasterly to Shoreham, Long Island. 7.54 miles of the pipeline length would be in Connecticut waters of Long Island Sound. Though the Devon Compressor Station is not included as an element of the Docket 226 application, it is listed as an integral part of the Eastern Long Island (ELI) Expansion Project and thus is also addressed in these comments.

Relationship to Islander East Gas Pipeline

Before discussing specific aspects of the application at hand, DEP wishes to return to an issue discussed in our scoping comments of April 11, 2002 for this project and in our May 17, 2002 comments to the Federal Energy Regulatory Commission (FERC) on the Draft Environmental Impact Statement (DEIS) for the Islander East Pipeline project. The foundational question raised in both these comments was whether the Iroquois ELI project and the Islander East pipeline constitute independent projects that only coincidentally share the same landfall on Long Island, or if they are, in fact, competing projects which would, or could, serve the same markets. Each of these proposals has its attendant resource and social impacts. If the proposals are deemed to be competing proposals, then potentially one set of project impacts can be avoided. It appears fairly clear at this point that the overall impacts of the Iroquois ELI project are less than those of the Islander East proposal. Therefore, if FERC does deem these two proposals to be competing projects, DEP would favor the Iroquois ELI project as the less environmentally disruptive pipeline.

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### Iroquois Alternative Routes

The discussion of project alternatives on pages 12-15 of the application appears to accurately portray the benefits and weaknesses of the various routing options for the Iroquois ELI line. Although the Looping Alternative would be operationally more efficient and also easier to construct, it would create an additional shoreline and nearshore crossing that is avoided by the proposed route.

Tap locations further from land, as in Options 1 and 2, would require more difficult construction in deeper water and also involve a need for other pipeline upgrades to compensate for the pressure drop from the Devon Compressor Station. These impacts would outweigh the limited benefit of a more remote tap location, which benefit consists of removing the tap and 900' of the pipeline from a leased shellfish bed.

It would have been instructive had the application detailed the improvements to the pipeline that would be necessary to employ the Option 1 or 2 tap locations. This is of more than academic interest since the tap for the potential Bridgeport lateral has already been constructed. We assume, but would appreciate confirmation, that construction of the Bridgeport lateral using this tap location would require looping or compression improvements to compensate for the pressure drop which is an issue for Option 2, which would use the same tie-in location. More complete justification for the dismissal of Options 1 and 2, including the operational ramifications of the pipeline pressure loss from Devon to these tap sites and the measures that would be necessary to compensate for it, will be sought by the department during the Coastal Consistency Review.

### Construction Methodology

Similar to the Islander East pipeline proposal, plowing is proposed as the principal methodology for pipeline placement by Iroquois. Plowing produces less turbidity than jetting and it is therefore, all other things being equal, a preferable methodology. We note, however, that unlike Islander East, Iroquois is not proposing to bury the pipeline, but rather to leave the trench open after pipeline placement and to allow the trench to refill by natural processes, a result which would require considerable time, as natural deposition rates are on the order of millimeters per year for a trench approximately 5' deep. The trench may actually be even deeper than this. Islander East proposed an 8' deep trench with only partial pipeline burial.

If Iroquois were to insist on not refilling the trench, our stated preference for plowing might be reconsidered. We would then ask for jetting to be revisited as a means to achieve complete pipe burial. The rationale for complete burial of the pipeline is described below. We note that while turbidity impacts, which would be greater with jetting, are very short term, the impacts of an open trench would be present for a very long period of time.

### Pipeline Burial

The applicant proposes to place the pipeline in the trench at a depth of approximately six inches to three feet below the natural seabed level ( page 19 and elsewhere). In certain unspecified locations, the pipeline may be covered, based on pipeline protection considerations.

DEP feels strongly, as we did with the Islander East pipeline, that the entire pipeline should be completely buried. An exposed pipeline lying in an open trench of 5' to 8' depth that crosses the width of the Sound could prevent benthic invertebrates and demersal finfish from moving past the pipeline in an easterly or westerly direction. It would, in effect, divide the Sound in half. Also, the use of lobster pots and fish trawls would be excluded from the pipeline corridor. This condition would last for an unknown period of time, potentially decades, since the sediment deposition rates along most of the pipeline route are, as mentioned, on the order of millimeters per year.

Burial also avoids the possibility for the trench to collect organic matter like drift algae, as depressions in depositional areas of the Sound often do. This organic material decays and/or uses up oxygen during respiration periods, with the net result that oxygen levels become depressed for lobsters or any other bottom dwellers. Therefore, the statement on page 142 that the open trench would provide favorable relief and a well oxygenated location for lobsters is true only to the extent that the trench may provide additional opportunities for burrowing. On balance, the open trench probably would not be beneficial due to possible obstruction of lobster and finfish movements and the accumulation of organic matter that would cause a reduction in dissolved oxygen. If Islander East can completely bury their pipeline, which was 24" in diameter, Iroquois, using the same installation technology, should also be able to bury their smaller 20" pipeline.

#### Bottom Impacts

This application contains very minimal discussion of the extent of bottom disturbance. A zone of 100'-300' total width will be disturbed by the physical movement, suspension and resettling of sediment. This information alone is not sufficient to estimate the areal extent of benthic habitat disruption or to estimate how much long-term habitat alteration may occur. No profile of the depth of sidecast or resettled sediment on either side of the trench over the 50-150' impact zone is provided. Nor are such basic parameters as the width or depth of the trench given. Other information lacking includes: the method of backfilling for those areas where it is proposed, the physical anchor and cable layout, a description and estimate of anchor scars and cable sweep, the number of passes necessary to complete the pipeline installation, and the proposed method of excavation and backfilling at the tap site, together with the sediment characteristics found there. These types of information are critical in determining the extent of benthic habitat impacts including how deeply lobsters and other bottom dwellers may be buried, and how likely they are to be able to escape burial. These types of information were provided by Islander East.

#### Lobster Impacts

Immediate mortality of finfish caused by the pipeline installation should be minimal since they can readily avoid the impacted area. Lobster, however, may not be able to move away from the area, and individuals could be killed by various aspects of the installation. Lobster do possess some ability to move out of the way of small plows or fishing trawls. However, for a large plow such as would be used in pipeline placement, DEP anticipates that lobsters will be killed by the plow, and possibly by other aspects of the installation such as the anchor cables sweeping across the Sound bottom as the barge is moved, and by the placement of the anchors themselves. To assess whether lobsters could be killed during pipeline installation, the following details would be useful: a thorough

description of the plow and barge anchoring system, how the cables, anchors and plow would be moved, their rate of movement, and the impact on the bottom.

Due to a recent die-off of lobsters in western and central Long Island Sound (the causes of which are not yet well defined), lobster abundance, and therefore commercial landings, have declined. Therefore, measures should be taken to prevent any additional impacts to this fishery. For those lobstermen whose fishing grounds include the pipeline route, mortality of lobsters caused by the pipeline installation could be manifested in reduced catch rates for some short-term, but unknown, period of time. This would depend upon what percentage of an individual's fishing grounds is in the affected area, how long the installation takes, and how many lobsters are killed. As it would be difficult, if not impossible, to estimate how the pipeline installation might affect the catches of individual fishermen, the applicant should attempt to minimize impacts by consulting with local lobstermen to determine if fine-tuning the route and time of year for installation could help to minimize mortality.

Disruption of fishing activities during productive times of year would also affect catches. Recognizing that considerable lobster fishing activity occurs in the proposed route, the applicant has proposed a number of worthwhile measures to minimize the disruption of lobster fishing. In addition, the applicant proposes to consult with the Connecticut Lobstermen's Association to develop and implement other measures. There, however, remains some ambiguity as to the timeframe the work is proposed to be undertaken. Winter months are cited in some locations, whereas a November to March timeframe is given elsewhere. Therefore, it is unclear if November and December are considered to be within the winter construction season proposed by the applicant. These months can be productive for lobstering in some areas of the Sound.

The applicant states that the area where fishing may be excluded is small and the period involved would be brief. However, once the amount of area occupied by the lay barge and anchoring system and the number of passes required is taken into account, it may be that, for individual lobstermen, it could represent a considerable amount of the area they fish. Also, the amount of time required to lay the pipe may represent a valuable portion of the period when fishing is productive. The applicant expects to lay pipe at a rate of 3,500' to 4,000' per day. Assuming the 3,500' per day rate, laying the pipe would require 11.5 days in Connecticut waters and 14.5 days in New York waters. Due to other factors such as multiple required passes, bad weather conditions or equipment failures, the actual amount of time may be longer.

Due to the above considerations, the applicant should consult with the lobstermen to determine if November and December are important fishing months along the proposed route. If so, alternatives should be discussed. For instance, it may be possible to conduct the work from January through April, when fishing activity is generally minimal. If the months of November and December are crucial to the pipeline installation, the applicant should state why. Lobstermen may also be able to offer suggestions on fine-tuning the route depending on local knowledge of lobster migratory behavior and distribution. A summary of any meetings, including dates, names of fishermen, opinions expressed and conclusions reached should be presented for the benefit of agency review.

Lastly, the application (p. 30) does suggest the possible use of local lobstermen as spotters on the lay barge during trenching. This measure could be a useful practice to avoid damage to lobster fishing equipment.

### Timing of Construction

The proposed winter-based construction schedule avoids or minimizes a host of impacts to fisheries, marine mammals, birds, marine turtles and to recreational and commercial fishing and boating. Two timing issues, which can be further addressed and fine-tuned during later regulatory proceedings, i.e., Federal Coastal Consistency Review and Section 401 Water Quality Certification, are limiting impacts to lobstering in November and December as discussed above, and avoiding early spring impacts to species on Charles Island, especially for State listed bird species which use the island for nesting. For the latter issue, it would be preferable that construction activities for the tap into the mainline are completed by mid-March. For the former issue, to the extent that flexibility exists in the pipeline trenching and placement schedule, those activities may merit scheduling later in the construction window, reducing the use of November and December, which are more active lobster fishing months, and perhaps pushing these activities into April if necessary. As stated earlier, consultation with the Connecticut Lobstermen's Association should be documented and will be relied upon, among other considerations, for guidance by this department in setting seasonal limitations on construction activities.

The applicant states on page 174 that it is unlikely that construction would take place May through August. All but the most incidental of in-water work would not be allowed during this timeframe. DEP prefers that construction take place between November 1 and April 30, contingent upon the factors discussed above. A seasonal restriction from June 1 through September 30 will most likely be required to protect shellfish from the elevated sediment levels caused by the trenching. Of course, any work on the Devon Compressor Station would not be impacted by any of these seasonal restrictions.

### Silver Sands State Park

The existing Iroquois pipeline enters Long Island Sound through Silver Sands State Park. While no construction activity is apparently contemplated to take place at the park, the pressure of the existing pipeline will be increased between the proposed Devon Compressor Station and the ELI pipeline tap. The applicant should document the increase in pipeline pressure and verify that the existing pipeline was designed and constructed for the new higher pressure, a step which we are sure is part of the FERC approval process. Will the higher pipeline pressures necessitate an amendment or modification to the existing easement for the pipeline through the park, or elsewhere?

### Permits

Page 38 of the application contains a list of State and Federal permits which the applicant intends to apply for in connection with this project. To date, the sole permit application received for the Iroquois ELI project is the application for the Bureau of Air Management's Permit to Construct and Operate for the Devon Compressor Station. That application was received on February 13, 2002. The Coastal Consistency Determination and Water Quality Certification applications, though listed with an application date of April 2002, have not yet been received. The Coastal Consistency Determination would encompass the Devon Compressor Station as well as the pipeline.

Application materials submitted to the DEP Office of Long Island Sound Programs (OLISP) in connection with the above-listed approvals should include a response plan to address any emergencies which might arise during pipeline installation. An on-going Operations and Maintenance Plan will also be necessary. This plan must describe maintenance and repair procedures and emergency response procedures.

The applicant should also be aware that final authorizations from OLISP typically require pre- and post-placement monitoring of the pipeline for its length in Connecticut waters. This monitoring will likely involve both topographic and biologic components. Specifics of the monitoring requirements, such as intervals for surveys and the total duration of the monitoring effort, will be determined during permit review.

Organizations contributing to the Water Quality Certification technical review will include the Connecticut Department of Agriculture's Bureau of Aquaculture, DEP Fisheries Division, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and other resource experts as appropriate. Staff will also be working in cooperation with the Army Corps of Engineers during this review process. The comments and recommendations of these groups will be evaluated by OLISP in reaching a determination on the proposed pipeline. Please note that while input from the Bureau of Aquaculture staff will be sought by OLISP during the Water Quality Certification review process, that office does not represent the Bureau of Aquaculture. It is also assumed that any comments to the Siting Council regarding aquaculture issues and concerns will be provided directly by the Bureau.

#### Environmental Inspectors

The role of environmental inspectors (EI) is discussed on pages 35-36 of the application. Environmental inspectors serve a very important function in the construction of large projects such as this one. As we commented to FERC on the Islander East DEIS, DEP would like to recommend a mechanism for administering this function which has worked exceedingly well, by accounts of all involved parties, first on Amtrak's Northeast Corridor electrification project, then on large scale State transportation projects. The recommended mechanism is to have the project applicant (Amtrak or ConnDOT in our cases, Iroquois here) fund the EI position(s) but have the inspector(s) be either an employee of FERC or a direct reporting contractor to FERC. This not only removes any external appearance that environmental monitoring might not be strictly undertaken, but it maximizes the effectiveness of the environmental inspector. This arrangement has worked out very well for us and been praised by the project sponsors. We highly recommend this approach to FERC and Iroquois should this project proceed.

#### Additional Application Commentary

The issue of protection of the pipeline from navigational impacts such as anchor drops or drags is not discussed in the application. Are there industry or regulatory standards in this regard, including any standards of FERC or the U.S. Coast Guard? Discussion of this point and documentation that the pipeline is not at risk from such damage will be helpful as the Office of Long Island Sound Programs considers the issue of pipeline burial depth in its review.

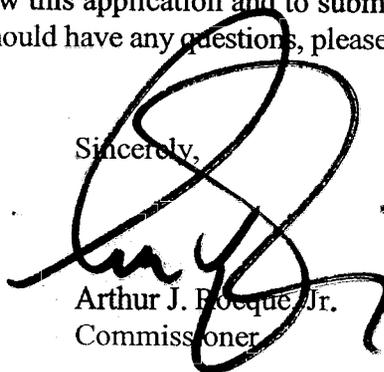
Very brief mention is made on page 193 of the need to perform inspection activities for the pipeline at 7-10 year intervals, such inspection requiring access to the tap location. Additional description of these activities including how the protective cap will be accessed, what equipment will be on site (both on the bottom and afloat) for these inspections, and the areal extent of disturbance, should be included in the permit submissions to DEP.

Does the reference on page 9 to "providing for co-location opportunities" refer to both the Iroquois mainline and ELI pipelines using the same shoreline crossing? Please ask the applicant to clarify what is meant by this phrase.

The DEP Natural Diversity Data Base shows the nearest occurrence of any State listed species to the Devon Compressor Station to be the sand bramble, also known as the sand blackberry (*Rubus cuneifolius*), a Species of Special Concern, located approximately 1/4 mile north of the proposed site and not expected to be impacted by any activities at the site.

Thank you for the opportunity to review this application and to submit these comments. If you, other Council members or Council staff should have any questions, please feel free to contact Frederick Riese of my staff at 424-4110.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read 'A. J. Focque, Jr.', is written over the typed name and title.

Arthur J. Focque, Jr.  
Commissioner

AJR:FLR