TRINIDAD AND TOBAGO

IN THE HIGH COURT OF JUSTICE

H.C.A. Cv. 2148 of 2003

IN THE MATTER OF THE JUDICIAL REVIEW ACT NO. 60 OF 2000

AND

IN THE MATTER OF ORDER 53 OF THE RULES OF THE SUPREME COURT, 1975

AND

IN THE MATTER OF AN APPLICATION BY FISHERMEN AND FRIENDS OF THE SEA

FOR

JUDICIAL REVIEW OF THE DECISION OF THE OF THE ENVIRONMENTAL MANAGEMENT AUTHORITY MADE ON THE 6TH DAY OF JUNE 2003 TO GRANT A CERTIFICATE OF ENVIRONMENTAL CLEARANCE TO THE ATLANTIC LNG COMPANY OF TRINIDAD AND TOBAGO FOR THE CONSTRUCTION AND OPERATION OF A FOURTH TRAIN FOR THE LIQUIFICATION OF NATURAL GAS FOR THE PURPOSE OF INCREASING LNG PRODUCTION AT THE LNG FACILITY AT POINT FORTIN

BETWEEN

FISHERMEN AND FRIENDS OF THE SEA
APPLICANT

AND

THE ENVIRONMENTAL MANAGEMENT AUTHORITY
RESPONDENT

AND

ALTANTIC LNG COMPANY OF TRINIDAD AND TOBAGO
RESPONDENT/INTERESTED PARTY

Before The Honourable Mr. Justice Stollmeyer

Appearances:

Mr. R. L. Maharaj SC and Dr. R. Ramlogan, instructed by Mr. D. Allahar for the Applicant.
Mr. S.R.R. Martineau SC and Mrs. D. Peake, instructed by Ms. G. Badrie-Maharaj for the Respondent.
Mr. M. G. Daly SC and Mr. T. Bharath, instructed by Mrs. L. Mendonca for the Respondent/Interested Party

JUDGMENT

The Applicant ("FFOS") is a public interest body engaged in environmental and community activities seeking to protect human life, human health and the environment within Trinidad and Tobago. The Respondent ("the EMA") is a statutory corporation charged with the management, conservation, use and regulation of the environment under the provisions of the Environmental Management Act 2000 ("the Act"). Under Section 16 of the Act its functions include developing national environmental standards and criteria, monitoring compliance with these standards and taking all appropriate action for the prevention and control of pollution and conservation of the environment. It is vested with the sole authority to grant environmental clearance for activities that represent potential threats to the environment, and does so by issuing a certificate of environmental clearance under Sections 35 and 36 of the Act.

The Respondent/Interested Party ("ALNG") is the owner and operator of a facility at Point Fortin, Trinidad, for the production of liquefied natural gas. It operates three liquefaction "trains" there, which are supported by three storage tanks and a marine loading terminal. The facility is bounded on the east and south by Point Ligoure and Fanny Village respectively and is some 30 kilometres south-west of San Fernando, Trinidad's second largest city.

On 6th June 2003 the EMA issued to ALNG a Certificate of Environmental Clearance No. CEC 0114/2002 ("the CEC") under the provisions of Section 36 of the Act relative to the establishment of an expansion to ALNG's existing facility which then comprised Trains I, II and III. The expansion is referred to as Train IV, and the CEC was issued subject to a range of terms and conditions to take effect prior to and during construction, as well as thereafter during operation of the facility.

Train IV is designed to produce approximately 5.0 million tonnes of liquefied natural gas annually (twice the total annual production of the three previous trains) from a nominal feed capacity of 804 million standard cubic feet of natural gas per day supplied by undersea pipelines from offshore (marine) wells. It shares a utility system with Trains I, II and III, with the addition of turbine generators and a fourth storage tank. Train IV is a designated activity under the Certificate of Environmental Clearance (Designated Activities) Order 2001 and requires the grant of a Certificate of Environmental Clearance.

The Relief Sought

FSOF brings these proceedings under the provisions of Section 5 (6) of the Judicial Review Act, 2000 ("the JRA") on behalf of the residents of areas adjacent to the ALNG facility who fear that their health has been or is likely to be seriously affected by Train IV. These provisions of the Act permit a person to move the Court for relief where any other person or group of persons who may be entitled to apply for relief are unable to do so on account of poverty, disability, or social or economic disadvantage. No issue is taken as to this.

FFOS contends that the EMA's decision to issue the CEC was unlawful on the grounds of illegality, procedural impropriety, unreasonableness and/or

irrationality. FFOS also contends that the decision is an abuse of public power, that the EMA fettered its discretion, that it failed to consider the relevant matters in exercising its discretion and that its decision is tainted with bias.

The claims to relief are for:

1. an order of Certiorari quashing the EMA's decision of 6th June 2003 to issue the CEC, and an order that the EMA reconsider that decision in accordance with the findings of this Court;
2. a declaration that the EMA acted unlawfully;
3. further and/or alternatively, declarations that the EMA: establish a buffer zone so that the residents can be relocated; conduct a comprehensive survey of the effects of air, light and noise pollution, as well as vibrations, on the health of residents; and prepare and implement an emergency response plan to protect the health, lives and environment of the residents;
4. further and/or alternatively an order pursuant to Section 5 A (1) of the JRA appointing such person or persons to investigate the risks which Train IV poses to the residents in the adjoining area and in particular:
   (a) the health complaints of the residents and the preliminary medical findings in respect to their complaints;
   (b) the risk to the health and lives of the residents and the environment;
   (c) the risk to the residents posed by air, noise and light pollution;
   (d) the risk to the protection of the health and lives of the residents by not establishing a buffer zone and if such buffer zone is to be established the extent of such buffer zone;
   (e) the risk to the protection of the health and lives of the residents by not relocating them;
   (f) the risk to the protection of the health and lives of the residents by not having an emergency response plan and if such a plan is required for an appropriate plan to be recommended;

and that such a report to be submitted to the Court and made available to the parties to the action; and that the parties to be heard in respect of the report and in respect of whatever applications they may desire to make in respect of it.

5. Such other orders, directions, or writs as the Court thinks fit in the circumstances under the Provisions of Section 8 (1) (d) of the JRA;
6. Costs.

The Grounds of the Motion

The grounds upon which FFOS bases its application for relief are extensive in their formulation and wording. They are contained in 26 paragraphs running to some 16 pages. Allowing for apparent overlap and repetition, they might be summarised as follows:

1. the EMA failed in its statutory duty to consider all relevant matters before deciding to issue the CEC;
2. The EMA misdirected itself and/or misapplied the law in the purported exercise of its discretionary power to issue the CEC;
3. the EMA failed to consider the cumulative impacts of Train IV on human health, human life and the environment "…in the light of the existence of Trains I, II and III", this being a mandatory duty imposed by Rule 10 (2) of Certificate of Environmental Clearance Rules, 2001 ("the CEC Rules");
4. the EMA surrendered and/or ignored the powers, mandatory functions and duties that it was required to exercise under Section 36 (1) of the Act, and allowed its discretion either to be dictated by private and/or political and/or other pressures, thereby abdicating its functions and/or duties, and/or allowing the exercise of its discretion to be fettered thereby;
5. the EMA created in favour of the adjoining residents and FFOS a legitimate expectation:

(a) of a procedural and/or substantive benefit that their concerns as to health, monitoring of environmental conditions, emergency procedures, and the establishment of a buffer zone and relocation would be considered and addressed prior to issuing a CEC;

(b) that a CEC would not be granted until these concerns had been considered and addressed, and if the EMA did not agree with their complaints and/or representations, then it would hold further consultations and then inform them of their reasons fthe disagreement and permit thereafter further representations to be made;

6. The purported public consultation, of 17th June 2003 was not in fact such a consultation, having taken place after the CEC was issued on 6th June 2003;

7. the EMA's conduct and/or statements made at that purported consultation demonstrated that the EMA was acting in bad faith;

8. the EMA failed to adhere to the doctrine of precautionary principle which imposed a duty on the EMA to:

(a) refuse the grant of a CEC until ALNG demonstrated that Train IV posed no risk to human health, human life and the environment;

(b) conduct studies and generate reports for the purpose of demonstrating to the adjoining residents and the national community that the feared risks did not exist "…if a CEC was granted for Train IV";

9. the EMA erred in law:

(a) in surrendering its discretion and/or abdicating its duties and responsibilities to ALNG;

(b) by disregarding its duty to follow the doctrine of precautionary principle;

(c) by arbitrarily exercising its powers in granting the CEC to ALNG in defiance of the decision-making process;

(d) by unlawfully exercising its powers when granting the CEC since it did not have all of the relevant information required by Section 36 of the Act;

(e) by disabling itself from considering and assessing the necessary risks so as to properly determine whether the proposed activities posed significant risk to human life, human health, public safety and the environment generally;

(f) by failing to investigate the risk to the adjoining residents and placing on ALNG the responsibility for doing so;

(g) by failing to conduct proper air quality, noise and light testing over a reasonable period of time before issuing the CEC, and failing to consider the results of such testing before granting the CEC;

(h) by granting the CEC in total defiance of the doctrine of precautionary principle, without first assessing the state of the environment insofar as light and noise were concerned, and by only requiring a monitoring of air and noise levels;

(i) by wrongfully exercising its discretion and/or acting in bad faith and/or contrary to the policy and objectiives of the Act;

(j) by failing to require that the monitoring process be conducted by independent third parties;

10. the EMA erred in law by not holding a public consultation pursuant to Section 28 (3) of the Act as it was under a duty to do because of the written comments it received on the Environmental Impact Assessment ("the EIA") which it had required ALNG to prepare and submit. This failure constituted a denial of the right of the citizen to participate in the decision-making process, and to enjoy the right given to him by the Act to enjoy an environment that is not harmful to his health;

11. the EMA erred in law by failing to ensure as conditions precedent to the issue of the CEC that a buffer zone was established so as to give effect to the doctrine of precautionary principle, and the EMA surrendered the exercise of its functions to ALNG by requiring it to develop mechanisms for any buffer zone which might be found necessary. Further, that condition or requirement is in any event inconsistent with the CEC which requires that any such plan be developed and forwarded to the EMA prior to the commencement of operations of Train IV. Yet further, the EMA abdicated its duty by putting itself in the position of having to approve any plans put forward by ALNG for a buffer zone thus constituting a clear conflict between ALNG's interests and the public interest;

12. the EMA erred in law by failing to require ALNG to relocate the adjoining residents within a stipulated time, although the EMA recognised that relocation was to be supported and that this also constituted a failure by the EMA to adhere to the doctrine of precautionary principle;

13. the EMA erred in law by failing to consider properly or at all whether adequate arrangements were in place to cater for any accident and/or emergency at the facility, and that either ALNG or the residents were able to "…deal with the situation". Further, there was a duty on the EMA to have ALNG submit such a plan prior to granting the CEC, and a further duty to give to the public an opportunity to comment and make recommendations and suggestions on such a plan since it would affect human health, human life and the environment;

14. the issue of the CEC was null, void and of no effect because it was not issued in accordance with the provisions with Sections 2, 6 and 36 (1) of the Act;

15. the CEC was ambiguous, inadequate, vague and contained meaningless conditions. It was an unreasonable and irrational decision to grant the CEC on reliance of the conditions imposed for the

protection of human life, human health and the environment generally and the deficiencies in the CEC included:

(a) failing to deal with the cumulative impact of Train IV;

(b) failing to deal with the health concerns of nearby communities;

(c) not dealing with specific environmental complaints such as light;

(d) not dealing properly with the question of a proper emergency procedure applicable to nearby communities;

(e) merely introducing the notion of a buffer zone while ignoring the specific health and environmental complaints of the residents, leaving it for ALNG to address the mechanisms for establishing such a buffer zone;

(f) requiring the monitoring of air, water and noise by ALNG but not requiring that independent third parties do this monitoring, while not requiring any monitoring of light and heat;

16. the decision of the EMA to grant the CEC was unlawful because:

(a) it was unauthorised and/or contrary to law;

(b) it was in excess of the jurisdiction of the EMA;

(c) it was made by the failure of the EMA to satisfy or observe the conditions and/or procedures required by law;

(d) it was an unreasonable, irregular or improper exercise of its discretion;

(e) it was an abuse of power;

(f) it conflicts with the constitution of Trinidad and Tobago the Act and its subsidiary legislation, and the National Environmental Plan;

(g) it was an error of law;

(h) it was made in bad faith, and/or for an improper purpose and/or upon irrelevant considerations;

(i) it was in breach of the rules of natural justice;

(j) it is in breach of and/or omission by the EMA to perform its duty;

(k) it frustrated the legitimate expectations of FFOS and the adjoining residents;

(l) it was made by the exercise of a power in a manner that is so unreasonable that no reasonable person could have exercised the power;

17. the decision of the EMA was illegal because it infringed, infringes and threatens to infringe the rights of the adjoining residents as guaranteed under:

(a) Section 4 (a) of the Constitution, to the right to life, since this right includes the right to a healthy environment which is included at Section 2.1 of the National Environmental Plan;

(b) Section 5 (2) (b) of the Constitution, not to be subjected to cruel and unusual punishment;

(c) Section 5 (2) (h) of the Constitution, to have such procedural steps taken so as to give effect to and protect their fundamental rights;

(d) Section 4 (b) and 4 (c) of the Constitution, to protection of the law and respect for their family and private life.

On behalf of the Respondent, Mr. Martineau summarised the Grounds in his skeleton arguments as follows:

1. the EMA failed in its duty to consider all relevant matters as it was required to do before making the decision to grant the CEC (paragraph 7 page 4 of Motion);
2. the EMA misdirected itself and/or misapplied the law in the purported exercise of its discretionary powers to grant the CEC (paragraph 8 page 7 of the Motion);
3. the EMA surrendered and/or ignored its powers mandatory duties and functions which it had to exercise under Section 36 (1) of the Act. It

allowed its discretion to be dictated by the private and/or political and/or other pressures and therefore abdicated its functions and/or duties (paragraph 9 (h) (7) of the Motion);

4. the conduct of the EMA created in favour of the residents and FFOS a legitimate expectation of a procedural and/or substantive benefit that their concerns in respect of human health, human life and the environment generally would be considered and addressed by the EMA before it made a decision to grant the CEC, and that the CEC would not be granted unless their concerns were considered and addressed by the EMA. Further, the EMA would have had further consultations with them prior to the grant of the CEC if it did not agree with their complaints and/or representations (paragraph 10 page 10 of the Motion);
5. the EMA failed in its duty in law to employ the doctrine of precautionary principle. It arbitrarily disregarded the doctrine and granted the CEC (paragraph 17, page 11 of the Motion);
6. the CEC was ambiguous, inadequate, vague and contained meaningless conditions; it was an unreasonable and an irrational decision to grant the CEC;
7. the CEC failed to deal with the cumulative impact of Train IV, failed to deal with the health concerns of the nearby communities; did not deal with specific environmental complaints such as light; did not deal properly with the question of a proper emergency procedure applicable to nearby communities; merely introduced the notion of a buffer zone while ignoring specific health and environmental complaints of the residents; left it up to ALNG to address the mechanisms for establishing the buffer zone; required monitoring of air, water and noise by ALNG but did not require that independent third parties do the monitoring, and did not require light and heat monitoring;
8. the decision to grant the CEC infringes and threatens to infringe the right of the residents to life as guaranteed in Section 4 (a) of the

> Constitution, which right includes the right to a healthy environment, because it is impossible for human life to survive without a healthy environment. It also infringes the rights of the residents guaranteed in Sections 5 (2) (b), 5 (2) (h), 4 (b) and 4 (c) of the Constitution. (Paragraph 26 page 18 of the Motion).

The grounds summarised at 1, 2, 3, 5 and 7 above allege illegality; that at 4 alleges procedural impropriety; and the ground summarised in 6 alleges irrationality

This encapsulation at least in part takes into account the elements of overlap and repetition which appear to exist in the grounds of the motion itself.

In the event, no application was made for leave to amend the Motion or to rely on any other ground not already set out in the Motion.

The Facts

In assessing the evidence I have kept in mind four principal factors.

First, at the outset of the trial applications were made on behalf of both the EMA and ALNG to have certain paragraphs of affidavits filed on behalf of FFOS struck out on the ground that they were either hearsay, or irrelevant, or both. In relation to a great number of the objections raised on behalf of ALNG, Mr. Maharaj conceded that the statement in the affidavit or document exhibited thereto constituted hearsay evidence, and could not be taken as proof of the matters set out therein. Ultimately, however, certain of those statements and documents were by agreement admitted into - or allowed to remain in - evidence for the limited purposes of proof that they had been sent to the EMA, that they were before the EMA when it was making its decision

to grant the CEC, and that they are to be considered by me in determining whether the EMA acted reasonably in coming to its decision.

The consequence of my rulings was that FFOS was left with an evidential base which was reduced and did not support certain of the Grounds.

Second, it was conceded during addresses on behalf of FFOS that the issue of legitimate expectation could not succeed and it was abandoned.

Third, what the Grounds reveal despite their wide ranging litany is that FFOS's complaints concern issues such as human health and human life, and the threats posed thereto by light, noise, and air pollution, vibration, the failure to establish a buffer zone, the failure to relocate the adjoining residents, and a failure to establish a plan to cater for accidents and emergencies at the facility. All of these concerns arise as a consequence of the construction and coming into operation of Train IV, including its cumulative effect. That is the thrust of the Applicant's case. While threats to the environment generally were also alleged, the submissions on behalf of FFOS were not directed specifically towards degradation of the environment or any adverse effect upon it as a consequence of Train IV. It is the health and well-being of the residents, if I might so express it, that underpins this motion and the relief sought. Indeed, that position is made clear by FFOS.

Fourth, judicial review is concerned with the decision-making process and not the decision itself. It is not a matter of whether a Court reviewing the decision would have come to a different conclusion, or disagrees with the decision. The decision complained of must have been either illegal, irrational or procedurally improper, principally as set out in e.g. *Council of Civil Service Unions and Ors. v. Minister for the Civil Service* [1984] 3 ALL ER 935 at 950 j-d, and at Section 5 (3) of the JRA. This statute is to a great extent a codification of a number of those instances in which it had been held that a

decision may be impugned. It is therefore a question of whether the decision maker acted in disregard of those principles. It is only if the answer is in the affirmative that the decision will not be allowed to stand.

As to the evidence itself, it would appear from the tenor and content of some of the documentation generated by FFOS, that it appears on occasion to have got carried away. From the beginning, press releases and correspondence are strident. They become exaggerative, inaccurate, hectoring, and on occasion certainly uncomplimentary of anyone perceived as not being in total sympathy or accord with FFOS's position. It may be that all this was regarded as necessary to increase public awareness and stimulate public opinion, but that is not what, ultimately, decides an application such as this.

I have already summarised the grounds on which the various forms of relief are sought. Similarly, I propose to set out briefly only those of the facts that have a bearing on the issues I am asked to decide. As to the issues themselves, I have as best I can categorised the multitude of Grounds into two of the three instances in which a decision may be impugned i.e. illegality, and irrationality. I have done so although the Applicant has placed certain of the grounds into more than one of these categories and despite there being an appreciable degree of overlap or duplication. While there would appear now to be no specific allegation of procedural impropriety, I also deal with this issue in a general way.

In doing so, certain issues may be dealt with under one of these heads more extensively than under another, but my doing so is not to be taken as giving any particular issue greater or lesser importance than any other; nor any greater nor lesser importance to an issue in the context of, say, illegality as compared to irrationality. Similarly, I have not - or not always - repeated all or any or my findings of fact in relation to any particular issue. The issues of precautionary principle and cumulative impact are dealt with in greater detail

particularly because of the great importance attached to them by during submissions and because they are being ventilated for the first time in this jurisdiction.

Finally, certain submissions are set out and dealt with in greater detail than others. None of those dealt with in greater detail, however, are to be taken as reducing or ignoring the worth of any other, nor as a reflection in any way adverse on the submissions made. I am indebted to Senior Counsel for their assistance and painstaking approach to the issues raised.

ALNG, as I have said, owns and operates a natural gas liquefaction facility at Point Fortin. Construction of this facility first began in or around 1995 with the construction of Train I. After completion of Train I, Trains II and III were then constructed, being completed sometime in 2002/2003.

Doon Sajadyar lives at Millette Street, Newlands, Point Fortin about 30 to 45 feet from the property line of the ALNG facility. She has lived there for some 18 years with a husband, a son – now 21 – and a daughter – now 15.

Her life has been affected adversely since construction started in 1995 because of the noise, vibration, dust and abnormal traffic. Construction activity also took place at night when light also affected her. Backfilling of certain lands created swampy areas with a consequent increase in the mosquito population. "Flaring" of natural gas causes discomfort because of the bright light and heat. There is also a foul smell emanating from the facility.

Her son "… suffered mild respiratory difficulties during his childhood…" i.e. well before construction of Train I began, but this apparently developed into an asthmatic condition since 1998. Her daughter recently started complaining of shortness of breath at night. The whole family suffers from running and burning eyes.

Her husband wrote to the EMA in February 2001 complaining about various matters, but got no better response than it would look into the matter. He wrote to ALNG in June 2001, but there does not appear to have been any response. He also wrote to the Ombudsman (I am not told when) who replied in February 2003 forwarding a copy of an inconclusive report sent to him by the EMA. This report speaks of further testing, but there is nothing to indicate that this actually took place. Her husband also wrote to their Member of Parliament and other persons in July 2003 complaining yet again. I am not told of any responses.

Michelle Dove lives with her family at Beach Road, Point Ligoure, Point Fortin about 700 feet from the property line of the ALNG facility. When construction work began in 1995 she was affected by dust which made her sneeze, and which also affected some of her electrical appliances. She and her family were subjected to high levels of noise and vibration during construction. They suffer running and burning eyes when natural gas is being flared, and have difficulty sleeping because of the noise. There is no complaint of any foul smell, or of light or heat from flaring.

Apart from discomfort caused by flaring, the complaints of the residents arise for the most part from the effects of construction work, past and present.

In February 2002 ALNG applied to the EMA for a CEC in relation to Train IV as required by the Act. The EMA made it known that an Environmental Impact Assessment ("EIA") was required and in March 2002 informed ALNG that a draft Terms Of Reference for the EIA ("TOR") was ready for collection. The TOR had been prepared in accordance with the CEC Rules 2001 made under the provisions of Section 26 (h) of the Act on the basis, at least partly, of two checklists prepared by the EMA based on extensive research. This included input from sources such as the European Commission and the United Nations Development Programme. One of these checklists identified the

relevant environmental issues associated with Train IV and included World Bank environmental assessment guidelines.

In April 2002 ALNG requested certain modifications to the TOR and on 7th May 2002 the EMA issued the TOR in final form under a transmittal letter requiring ALNG to conduct public consultations, although the CEC Rules do not require this to be done.

ALNG held a public consultation on 25th June 2002 as the first of three stages in what the EMA considered to be the process of public consultation. This public consultation is not a mandatory requirement under the CEC Rules, but the EMA decided that in this case there was sufficient public interest to warrant it.

FFOS had been notified of this meeting a fortnight before; that it was to inform the public about the scope of Train IV; and that any concerns raised would be considered when the EIA was being prepared. FFOS was represented by its president and Gary Aboud, its secretary. They asked questions as to a cross-island pipeline, but as to Train IV the questions raised related to coastal erosion, the use of toxic chemicals at the existing facility, and site preparation works. They (the representatives) left the meeting because they considered that their questions had not been answered.

FFOS then wrote to the EMA on 1st July 2002 expressing its concern about that meeting. It complained of not having been supplied with a copy of the TOR, to which they considered they were entitled under the CEC Rules 5 (2), but the TOR having already been issued this was clearly a misinterpretation of the Rule.

This letter also made mention of the question of toxic waste generation and disposal, and the cumulative impact of Train IV, particularly with respect to

coastal erosion. The latter aspect, however, is not an issue before me. Principally, the cause of FFOS's dissatisfaction was that the meeting was only to receive and note matters raised by those attending, and that it was not to supply answers to their questions.

The Environmental Impact Assessment was submitted by ALNG on 10th September 2002 together with a "Hazard Assessment Report" and an "Environmental Baseline Report". For convenience, these three documents are referred to collectively as "the EIA". They were reviewed over a period of some nine months by both EMA staff and a wide range of third parties on behalf of the EMA. The first two of these documents are set out in greater detail in connection with the issue of cumulative impact.

On 1st October 2002, the EMA wrote to several parties inviting them to participate in the review of the EIA as part of a team doing so, and to visit the actual site. This invitation was based upon the expertise of those parties in relation to various technical aspects of the EIA and was issued to the Director, Town and Country Planning Division, Ministry of Planning & Development; the Trinidad and Tobago Fire Services Division, Ministry of National Security; Ministry of Energy and Energy Industries; Ministry of Labour; the Point Fortin Borough Corporation; the National Emergency Management Agency; and the Director, Lands and Surveys Division, Ministry of Agriculture, Land & Marine Resources.

By Notices in the Trinidad and Tobago Gazette and local newspapers, the EMA notified the public that an Administrative Record had been established in accordance with the Act and was available for public inspection. Comments were invited from the public on the EIA to be received during the period 7th October to 15 October 2002. The EMA considered this to be the second stage of the public consultation process.

FFOS obtained a copy of the EIA and submitted its comments to the EMA on 12th November 2002 by way of two letters.

In the first, FFOS raised seven areas of concern arising out of the EIA:

1. the need for increased security because of a high alert against terrorist activities and a previous anthrax scare at the ALNG facility;
2. the omission of a community emergency plan in the event of a "gas fireball" or other similar type of explosion;
3. the omission to deal with the establishment of specific medical facilities, such as a specialised burn unit, in the area;
4. the omission of "…responsibility for the catastrophes …" arising out of the activities associated with Train I;
5. the omission to consider the impact on fishing activities and to recognise the urgent need to avoid the damage to fishing gear, as well as to consider the need for compensation for loss of fishing gear;
6. the failure to adopt a "cradle to grave" approach for the safe disposal of toxic waste;
7. the omission to address the need for emergency hazardous material vehicles.

The second letter of that date complained that the EIA did not:

1. examine the cumulative impact of dredging so as to facilitate increased marine traffic;
2. address the cumulative impact of coastal erosion;
3. address the cumulative impact of siltation;
4. make mention of responsibility for catastrophes (as had been set out in the first letter);

5. consider the impact on fishing activities and recognise the need to avoid the damage to fishing gear (as had been set out in the first letter);
6. adequately consider the sensitive nature of coastal mudflats, nor responsibility for the replanting elsewhere of mangrove growth.

These letters therefore raised four main concerns:

1. the need for security;
2. the need for plans in the event of an emergency, and specialised medical services;
3. the generation and disposal of toxic waste;
4. the effects on fishing activities and the coastline.

The last of these is the subject of a separate certificate and is not in issue before me.

The health of the residents was not yet a concern of FFOS.

On 18th November 2002 the Ministry of Labour and Small and Micro Enterprise Development (Factory Inspectorate Division), a part of the EIA review team submitted its comments.

A meeting of the team to review the EIA was held on 19th November 2002, at which time FFOS's letter of 1st July 2002 and its comments in its letters of 12th November 2002 were discussed and considered.

The EMA decided that there was sufficient public interest to warrant it holding a public consultation of its own, although such a consultation is not a mandatory requirement under the Act or the CEC Rules. It considered this to be the third stage in the public consultation process.

It therefore wrote to all of the parties which it had invited to participate as members of the team to review the EIA, as well as the Member of Parliament for the constituency of Point Fortin (in which the ALNG facility is located) inviting them to a public consultation to be held on 22nd November 2002 at the Point Fortin Civic Centre. Notice of this meeting was advertised in two daily newspapers, and "flyers" were distributed widely throughout Point Fortin. Notice of the meeting was also given on 22nd November by way of announcements over a loudspeaker system mounted on a motor car driven through the community.

The meeting was chaired by Neil Parsanlal, Corporate Communications Officer of the EMA, and was also attended by other personnel of the EMA including Carlyle Kalloo, Permitting, Compliance & Monitoring Supervisor of the EMA's Environmental Resource Management Department. Twelve people signed the register as attending the meeting. Representatives of civic, business, and religious organisations were present, as well as Doon Sajadyar, Michelle Dove and Gary Aboud. The persons attending, including Mrs. Sajadyar and Ms. Dove, made their views known.

There is contention as to precisely what was said by Mr. Parsanlal at that meeting as to what was to happen thereafter. Ms. Dove said Mr. Parsanlal told the meeting their complaints would be investigated, that the EMA would have a further consultation and report back to the residents before clearance was granted for Train IV.

Mr. Aboud says that Mr. Parsanlal told the meeting that a note was being taken of the comments made, that those matters would be investigated, that a report would be made to the community in a public consultation, and that this consultation would be held before a decision was made on the application for the CEC. Further, says Mr. Aboud, Mr. Parsanlal promised those present that they would have the opportunity to express their views on the EMA's report of

its investigations. According to Mr. Aboud, the EMA failed to fulfil this undertaking and make its report available. Instead, he says, the EMA held a consultation after the CEC had been granted.

Mr. Parsanlal denies that he ever said a further public consultation would be held before a decision was made as to whether a CEC should be granted. He says that as his "…concluding statement …" at the meeting, he told those present that "…the EMA was in a much better position to proceed with its deliberations" having already had the benefit of the comments from the first public consultation held by ALNG, and having now listened to their comments. What he promised, he says, was to return to Point Fortin and explain to the residents how their concerns had been treated with when the EMA was deciding the application for the CEC, whatever and whenever that decision might be.

Doon Sajadyar, who also attended and spoke at the meeting making known her family's problems with the existing ALNG facility, and their health problems in particular, however, makes no mention at all of any promised or proposed further consultation or meeting, much less what its purpose was to be.

Determining what was said is relevant only to the issue of legitimate expectation which was not pursued. I therefore express no conclusion. The fact remains that there was no further public consultation.

On 28th November 2002 the Ministry of Energy and Energy Industries ("The Ministry of Energy") commented on the EIA to the EMA. Those comments were considered and a meeting held with the Ministry to discuss them.

It was not until 9th December 2002 that FFOS took up the residents' health concerns with the EMA. On that date it wrote to the Chairman of the EMA,

Dr. John Agard, saying that a preliminary medical examination of residents in the area of the ALNG facility revealed a high incidence of new respiratory ailments, including asthma, over the previous 18 months. This suggested, although it was not documented, a link to the operations of Trains I and II, and FFOS was insistent that the cumulative impact of noise and air pollution be investigated.

On 23rd December 2002 the EMA wrote to ALNG requesting certain information so as to address the deficiencies in the EIA which had been identified during its review. This letter is set out in more detail when I look at the issue of cumulative impact. ALNG was also told that independent external experts were reviewing the Hazard Assessment Report and the social impact of the project. The Ministry of Energy nominated DNV Consulting ("DNV"), a division of Det Norske Veritas, for this purpose and it was retained by the EMA to do so. Det Norske Veritas is an international organisation with customers in the worldwide maritime and process industries. It has considerable experience in drafting and reviewing Hazard Assessment Reports.

On 7th January 2003 the Ministry of Energy submitted further comments to the EMA on the EIA. This letter is dealt with in greater detail when I look at the issue of cumulative impact.

On 8th January 2003, the EMA informed ALNG of the delay in submitting the CEC application. It also said that the Hazard Assessment Report had been submitted to independent consultants for their review so as to ensure that the project was evaluated by technical reports.

FFOS wrote to the EMA again on 14th January 2003. It alleged that the EMA had received first-hand information from residents of Beach Road, Newlands, and Point Fortin, of symptoms and incidents of asthma and other related

respiratory diseases. It suggested that the EMA "…should lean on the "precautionary principle"" in view of the agreed lack of scientific certainty, and conduct air pollution testing for a six month period so as to investigate properly any potential linkage of the respiratory ailments to the operations of Trains I and II.

On 21st January 2003 ALNG wrote to the EMA expressing concern about the delay in processing its application for the CEC.

The EMA responded to FFOS's letter of 14th January on 24th January 2003 saying that the matter was being investigated "…by other relevant agencies and the EMA". The EMA had already written to the Ministry of Health requesting information on the types and frequency of respiratory diseases on the Point Fortin area, and enquiring whether there was an unusually high incidence of such diseases.

Also on 24th February, the EMA received DNV's report. It expressed certain reservations and indicated that further information was needed. It was considered and subsequently forwarded to ALNG with whom it was discussed.

On 26th February 2003 Town and Country Planning Division's (a part of the EIA review team) comments were received and considered by the EMA.

On 18th March 2003 the Ministry of Health submitted its report, through the County Medical Officer of Health for St. Patrick, that there was no increasing trend of respiratory disease in the Point Fortin area.

On 19th March 2003 EMA forwarded the DNV report to ALNG and requested that ALNG address the deficiencies identified by DNV. EMA's Permitting

and Compliance Supervisor held discussions with ALNG on how those issues were to be addressed.

On 20th March 2003 the EMA submitted the DNV report to the Ministry of Energy and requested its comments.

On 28th March 2003 ALNG responded to the matters raised in DNV's report considered and discussed this response with ALNG before submitting it to DNV and the Ministry of Energy.

On 16th April 2003 Carlyle Kalloo, Permitting and Compliance & Monitoring Supervisor of the EMA, prepared an internal report on the CEC application dealing with public comments, health concerns, external experts reviews, meetings with ALNG and public comments. Although expressing certain reservations it is clear from this report that the EMA had been considering the input from the public and was addressing their concerns.

On 24th April 2003 the EMA wrote to The Trinidad Pilots and Berthing Masters Association requesting its comments with regard to the CEC application by ALNG in order to elicit further technical guidance to address the issue of shipping traffic in the area so as to avoid hazards.

On 25th April 2003 the EMA received a Seismographic Monitoring Report from ALNG to assist the EMA in developing conditions for monitoring vibrations that may have resulted from pile driving activities. This assisted the EMA in including a condition in the CEC to ensure that vibrations would not present a problem to residents in the area.

On 28th April 2003 Rapid Environmental Assessment (2003) Ltd was retained by the EMA to review the draft CEC and to make recommendations for

improvement. This was consistent with the EMA's policy to prepare a draft CEC for comment, deletion, addition and further follow up.

On 29th April 2003 the Ministry of Energy submitted its recommendations as to specific terms and conditions for inclusion in the CEC. These are set out in greater detail when I look at the issue of cumulative impact.

On 1st May 2003 Rapid Environmental Assessment submitted its comments on the Draft CEC. This letter is dealt with in greater detail when I look at the issue of cumulative impact. The EMA considered these comments and modified the draft CEC. On the same day, ALNG expressed concern about the delay in the issuance of the CEC. The EMA claims that this did not influence or deter the EMA in any way from carrying out its duties or pursuing a meticulous review of the CEC application.

In the meantime, FFOS sought to mobilise public support, issuing flyers announcing a public meeting outside ALNG's offices in Port of Spain on 21st March, and then a press release on 25th March. The latter makes mention of an increased range of health problems among the residents and the need for a plan to relocate them. A press release of 24th April invited the public to a candlelight demonstration in Point Fortin on 25th April to hear about ALNG's "…callous disregard… of suffering by innocent communities".

On 28th April FFOS issued a press release complaining of ALNG's participation in an "health fair" in Point Fortin at which it was offering free medical checkup, but not "lung testing".

On 7th May it held a public meeting at Beach Road, Point Fortin to discuss with residents their health concerns and emergency procedures, among other issues. On 8th May it issued a press release about its agreement to meet with

ALNG at the invitation of United Nations Development Programme office in Port of Spain in an effort to resolve any differences between them.

Following a meeting with the UNDP it wrote to the UNDP setting out a draft agenda for the proposed meeting with ALNG detailing concerns about health as a consequence of air and water pollution, and noise and light pollution. It also expressed concern about damage to buildings because of excessive vibration; of coastal siltation, erosion and degradation; loss of recreational facilities; and "…Loss of Natural Beauty and Biodiversity in terrestrial and Marine Environments". Mention was also made, as had previously been done, of the impact on fishing activities. This draft agenda recommended preliminary scientific verification by independent consultants/scientists; compensation; relocation; health care guarantees to asthma sufferers; and the creation and development of safe alternative recreation facilities.

On 8th May ALNG submitted to the EMA its response to the issues raised by the Ministry of Energy. It, among others, suggested future continuous monitoring and reporting of noise and air standards.

By letter of 13th May FFOS complained to the EMA that ALNG had started site work apparently in the absence of a CEC. It demanded a response to various enquiries within seven days. Like so much of its other correspondence it adopted a hectoring tone. This letter was also copied to the Prime Minister of Trinidad and Tobago, and a range of Cabinet Ministers. The EMA investigated this complaint, and on 28th May wrote to FFOS saying that no CEC had been granted and that an investigation had been started as to whether site preparation work had begun. On 28th May the EMA issued a Notice of Violation against ALNG. In the meantime, on 19th May, FFOS had issued a press release that Train IV had been stopped following its complaint of 13th May.

The EMA retained Dr. Acton Camejo, Social Research Consultant and former Head of the Department of Sociology of the University of the West Indies, St Augustine, Trinidad, to provide a sociological analysis of the EIA. Unfortunately, he died before completing his report, but his partial report was received and considered. The EMA also considered comments on the EIA by Dennis Pantin, Senior Lecturer in the Department of Economics University of the West Indies.

On 19th May 2003 Dr. Camanie Naraynsingh-Chang delivered to FFOS and the EMA a report of the medical investigations which she had been commissioned to carry out by FFOS in December 2002. FFOS subsequently sent copies of this report to the Chairman of the EMA, Independent Senators in the Trinidad and Tobago Parliament, "Senior Editors" and trade union leaders.

That report was both "very preliminary" and "incomplete". The information given by individuals in response to questions asked by a team sent out with questionnaires had not been verified and it was acknowledged that statistical input was needed for interpretation. As Dr. Naraynsingh-Chang put it: "…there is a need for a more in-depth study using verified data". This report indicates that in perhaps 25% of the 55 households involved in the survey, there were complaints of "itchy eyes" and/or skin rashes. Additionally, perhaps 40% of the households involved complained of respiratory illness. It was criticised by Dr. Persaud and Dr. Doon (on behalf of the EMA) for its shortcomings, and ultimately was of little assistance, if any, to FFOS and the residents.

On 22nd May the EMA received DNV's technical report. There were discussions between the EMA, DNV and ALNG with a view to resolving the issues raised in this report.

On 26th May the EMA considered a report on research carried out by the Faculty of Medical Sciences, University of the West Indies, as well as a report published in "The Lancet". These dealt with the health concerns and the issue of respiratory illness in particular. The latter indicated "sahara dust" as a contributor to asthma complaints.

On 4th June the EMA wrote to ALNG requesting a report on changes to the site following its visit there in an effort to obtain information regarding the Notice of Violation issued on 29th May. On 5th June the EMA received, and considered, ALNG's response.

On 6th June the EMA received DNV's review of ALNG's response to the issues raised in DNV's final report on the Hazard Assessment Report. DNV took no major exception to the conclusions in the latter and the Assessment of Individual Risk Report, being of the view that they were in accord with what could be considered good industry practice for similar projects.

On 6th June 2003 the EMA issued the CEC to ALNG 190 working days from the submission of the EIA in September 2002. The issue of the CEC was subject to a wide range of terms and conditions:

(1) a requirement to undertake certain mitigation measures:

a. the project description, scope and anticipated impacts as well as the prevention, mitigation, compensation and monitoring measures presented in the application for the CEC, the EIA Report and any additional information provided in writing, were to form part of the conditions to which ALNG must adhere unless specifically modified by a listed condition within the CEC;

b. all vehicles, machinery and equipment used to be inspected and maintained at all times according to the manufacturers' specifications so as to minimise negative impacts on the environment;

c. the construction site to be managed to minimize the generation of dust and potential negative impacts on air quality and health; silt-laden runoff to be controlled by silt traps and temporary drainage systems; wheels and bodies of trucks to be cleaned before leaving the site to minimize off-site transport of mud;

d. dedicated storage and dispensing facilities for fuels and chemicals should be established with containment measures to prevent the release of chemicals through spills.

e. stack emission standards and ambient air emission standards set out in the CEC were not be exceeded. No issue is raised as to these standards being too low or otherwise unacceptable.

f. sewage to be treated at an on-site treatment plant, the design of which must be approved by the Water and Sewage Authority. Effluent specifications were set out and are not queried. During construction all sewage to be removed from the site.

g. all liquid effluent to be treated within the site during operation. Specifications were set out and are not queried.

h. oily waste and non-hazardous waste to be collected for environmentally acceptable remediation, recycling and disposal. All equipment with the potential to cause spills of oily material and other chemicals to have adequate catchment facilities to prevent accidental releases to the environment.

i. spent carbon beds and molecular sieves to be handled with caution and stored in sealed drums in designated areas to minimize contamination of the environment, and to be disposed of in a manner approved by the EMA or re-exported to the manufacturer within 90 days. A disposal certificate to be obtained and forwarded to the EMA.

(2) other terms and conditions:

a. design and construction of Train IV to comply with international standards, including those relating to Quality Control, Process

Safety, Emergency Shutdown, fire protection and pipeline testing. These standards are specified in the CEC.

b. design and layout to comply with requirements of the relevant entities such as Town and Country Planning Division, Ministry of Works, Lands and Surveys Division.

c. vibrations from piling not to result in ground motion at any point outside the facilities perimeter line exceeding a peak article acceleration of 1% of g; no piling to take place on Sundays and Public holidays, or from 7 pm to 7 am the next day where this piling results in any increase in ambient ground vibration in the closest residential communities. ALNG to monitor compliance with this condition and report any breach immediately to the EMA.

d. piling and other construction activities to adhere to the Noise Pollution Rules 2001. The closest receptor communities to be given prior notice of e.g. piling, steam blowing of pipes, plant testing where it is anticipated that these activities could exceed the limitations.

e. the Drainage Division to approve temporary and permanent drainage systems.

f. ALNG to formulate a Traffic Management Plan that addresses the routing and timing of heavy vehicles as well as baseline conditions in respect of pre-construction road conditions in order to arrive at an agreed basis for determining deterioration directly attributable to ALNG's activities. Any such damage to be repaired by ALNG within 2 weeks of notification by the relevant authority, with the plan for same to be submitted to the EMA before the commencement of works, and to be approved by the relevant entities.

g. all vehicles transporting equipment and other material to be adequately secured or covered to prevent accidents and spills.

h. ALNG to design, construct and maintain Train IV as stated in the EIA and develop measures to reduce the risk of the operation of Train IV in accordance with sound petroleum industry standards and practices, so as to minimise the risks associated with operation to a level that is as low as reasonably practicable (ALARP). The ALARP analysis that determines these measures to be completed within 7 months of issue of the CEC. Minimum requirements were set out in detail. The Ministry of Energy and Energy Based Industries to evaluate and verify that Train IV meets good industry practice.

i. ALNG to develop a comprehensive Health and Safety plan for implementation during construction as well as during actual operations. The plan to be submitted to the EMA, Ministry of Energy and Energy Based Industries and the Factories Inspectorate for approval prior to commencement of work or operations, as the case might be.

j. ALNG to develop a plan to establish a buffer zone around the entire facility should the need arise to minimise the impact of both the construction and operations. Any such buffer zone to be consistent with applicable international standards and guidelines, and to be forwarded to the EMA prior to the commencement of operations.

k. ALNG to ensure that contractors operating within the site adhere to good environmental practices, the conditions of the CEC, ALNG's health and safety procedures and other commitments made in the EIA.

l. ALNG to develop an Emergency Preparedness and Response Plan and submit it to the EMA and the Ministry of Energy and Energy Based Industries prior to the introduction of hydrocarbons into Train IV. The Plan is to include procedures for responding to anticipated extreme natural events such as tropical

storms/hurricanes, and in the event of unexpected emergencies the plant to be designed so as to facilitate automatic shutdown.

m. no releases of natural gas to the external environment during testing, start up and normal operations. Where this is unavoidable during emergency conditions, these releases are to be flared.

n. ALNG to install and maintain natural gas sensors at strategic locations throughout the plant, calibrated and designed to automatically notify personnel of adverse conditions via an alarm system. Certain specifications were included.

o. cooling and fire fighting equipment that utilize ozone-depleting substances are not to be used where suitable alternatives are available.

p. ALNG to employ the principles of Community Awareness and Emergency Response (CAER) in preparing and implementing education and awareness programmes that ensure neighbouring communities are informed of risks and participate in plans and procedures to deal with possible emergencies. Such programmes are to be approved by the EMA prior to the introduction of hydrocarbons into Train IV.

q. ALNG to monitor employment trends at the facility and inform the Point Fortin Borough Corporation, Town and Country Planning Division and the Ministry of Labour of same.

r. ALNG to respond to all emergencies in the operation of Train IV. All accidents, emergencies and spills to be reported to the EMA and to all the relevant authorities, and the reports to include the measures taken to deal with the emergency.

s. ALNG to monitor:

- Noise levels during construction and operations
- Ambient air for particulates during construction as well as for sulphur dioxide, nitrogen oxide, carbon monoxide, hydrogen sulphide and mercury content during operation of

the entire facility (including Trains I, II and III). Detailed requirements are set out

- Stack air emissions for sulphur dioxide, nitrogen oxide, carbon monoxide particulates, as well as for Volatile Organic Compounds during operation of the entire facility
- Meteorological data
- Sewerage treatment plant
- Potentially contaminated storm water
- CPI Effluent Discharge testing
- CO2 emissions

Summary reports on these monitoring programmes to be submitted to the EMA quarterly during construction and the first year of operation. Thereafter they are to be submitted annually. All sampling and analysis to conform to internationally acceptable methodologies and procedures, and the reports to be retained and made available to the EMA. Any adverse analysis to be reported immediately to the EMA and corrected.

t. ALNG to submit a written report giving details of any emergency, accident or spill at the facility. The details to be given are specified in the CEC.

u. ALNG to formulate a written procedure to facilitate the sharing of information, as set out in Section 3 (page 22) of the Hazard Assessment Report, and submit same to the Ministry of Energy and Energy Based Industries for approval.

v. ALNG to designate a contact officer responsible for liasing with the EMA for this purpose, such officer to be available on a 24-hour basis.

w. ALNG to allow an inspector appointed under the Act to enter the premises at any reasonable time.

x. modifications to monitoring programmes set out in the CEC to be subject to discussions and subsequent approval by the EMA.

y. decommissioning of the ALNG facility at the end of its operational life to be subject to a separate application for a certificate of environmental clearance.

z. ALNG to submit a closure report to the EMA and Ministry of Energy and Energy Based Industries within 6 months after completion of construction with the objective of identifying environmental issues that may have arisen during that time and the success or failure of mechanisms used to manage associated impacts. The content and format of this report to be finalized in consultation with the EMA.

As is noted on the CEC, its issue does not dispense with the requirement to obtain any other statutory approval needed to proceed with the construction and operation of Train IV.

Certain events followed the issue of the CEC.

Following an invitation from the Chairman of the EMA, representatives of FFOS and three residents of Point Fortin met with him on 13th June together with the EMA's Manager of Legal Services, its Manager of an Environmental Resources Management, and Mr. Parsanlal.

FFOS presented a "position paper" for discussion.

This again raised the issues concerning the coastline. It also questioned whether the EMA had the necessary expertise to competently assess various reports; requested a copy of any internal assessment done; enquired whether the assessment was done by the EMA or, alternatively, by an external expert and in any event whether the report was ever submitted for public comment.

All of these queries were apparently raised in relation to the issue of the coastal/marine issues.

The position paper does, however, go on to submit to the Chairman yet another copy of Dr. Naraynsingh-Chang's preliminary medical survey (to which I have referred). It requests that the noise, light, and air quality testing be carried out, and in the event that these reveal possible harm to human health and the environment that "… the CEC should state that the ALNG and the government would…" relocate residents to houses at least comparable to those presently enjoyed on parcels of land equivalent in size; compensate them for relocation stress; and put into place life-time health insurance for short-term respiratory complications, and other medium and long-term health related complications that might arise from the overall development.

This position paper was apparently predicated on a misunderstanding by FFOS that the CEC had already been granted in the previous February. It was during the course of this meeting that FFOS was told that the CEC had been issued and it obtained a copy while the meeting was in progress.

On 14th June 2003 FFOS issued a press release condemning the grant of the CEC for Train IV despite health and environmental concerns; the first hand information the EMA had as to the plight of residents near ALNG Point Fortin; and the preliminary statements of the EMA. Mr Gary Aboud began, on behalf of FFOS, to inform the membership of FFOS through a series of community meetings that the CEC had been granted.

On 15th June 2003, at a community meeting in Point Fortin, FFOS agreed to challenge the grant of the CEC on behalf of the residents of the area due to their socio-economically disadvantaged position.

On 17th June 2003 the EMA held a public meeting in Point Fortin to explain the terms of the CEC. The CEC Explanation document prepared by the EMA stated that its purpose was to explain to the residents of Point Fortin how the EMA had addressed the concerns they had expressed at the first public consultation in November 2002. A partial summary of that document (which reflects certain conditions of the CEC) is as follows:

Residents' concerns	EMA CEC conditions for ALNG
Risk assessment	EMA found the plant to be within acceptable international standards. The EMA supports the relocation of the residents.
Coastal erosion	ALNG will spend $1.2 million to stop any increase in erosion. Remediation will be done by ALNG if ALNG is found to be responsible.
Emergency response	ALNG to develop a Public Awareness Strategy to inform communities of risks and emergency procedure. This document is to be submitted to the EMA for approval prior to the commencement of operations.
Relocation of residents	ALNG to submit plan for the establishment of buffer zone to the EMA prior to commencement of operations.
Traffic management and road conditions	ALNG to formulate a Traffic Management Plan which is to be approved by the relevant traffic management authorities.

Dust, soot and toxic gases	ALNG to manage construction site to quell the negative impacts of air quality and health. silt laden runoff must be controlled. Silt traps and temporary drainage systems must be installed. Roadways must be wet to keep dust down. The air to be tested at 6 locations.
Health Effects Eyes Respiratory illness	ALNG to liase closely with the Ministry of Health to conduct a survey of the possible impacts of LNG activities on the residents. Report must be submitted to the EMA within 2 weeks of its availability.
Employment	ALNG to monitor employment trends at the facility as this will allow EMA to determine if the promises of economic benefit are being utilised.

While this last series of events does not touch on the decision-making process, or the decision made, they demonstrate an ongoing concern by the EMA to consider what FFOS and the residents had to say.

The Issues

FFOS alleges that the EMA's consideration of the CEC application was illegal, irrational and procedurally improper.

Illegality

FFOS contends that the EMA acted illegally by:

1. *failing to consider all relevant matters as it was required to do before it made its decision to grant the CEC;*

2. *misdirecting itself and/or misapplying the law in the purported exercise if its discretionary powers to grant the CEC;*
3. *surrendering its powers, mandatory duties and functions which it had to exercise under Section 36(1) of the Environmental Management Act, 2000 and by allowing its discretion to be dictated by private and/or political pressures;*
4. *failing to apply the doctrine of precautionary principle;*
5. *granting the CEC and in so doing infringing the rights of residents to life, protection of the law, respect for family and private life and the right not to be subjected to cruel and unusual punishment;*
6. *failing to hold a public hearing as contained in its statutory discretion under the CEC process;*
7. *granting a CEC that did not adequately protect the public, or was ambiguous and uncertain;*
8. *failing to establish a buffer zone so as to give effect to the doctrine of precautionary principle;*
9. *grant the CEC in contravention of sections 2, 6 and 36(i) of the Act;*
10. *not having all the information required by Section 36 of the Act;*
11. *arbitrarily exercising its powers in defiance of the decision making process;*
12. *not considering and assessing the necessary risks so as to properly determine whether the proposed activities posed a risk to human life, health, public safety and the environment generally;*
13. *failing to investigate the risks to adjoining residents;*
14. *failing to conduct proper air quality etc. testing and to consider the results of those tests;*
15. *granting the CEC in wrongful exercise of its discretion and/or acted in bad faith;*
16. *defying the doctrine of precautionary principle;*
17. *failing to require the relocation of residents;*

18. failing to consider properly or at all whether proper arrangements were in place to cater for accidents or emergencies;

19. issuing the CEC in excess of its jurisdiction.

Legality can be defined as correctly understanding the law that regulates the decision-making process and giving effect to it. The failure to observe these principles will result in illegality.

1. *The EMA failed to consider all the relevant matters.*

FFOS argued that if the EMA had performed its duties it would have found that it needed more time to investigate the significant uncertainties which the Train IV project would have had on human life, health and the environment. FFOS compiled a list of relevant matters which the EMA ought to have considered. These matters included among others, the complaints of the residents about the threats to their health, the medical report of Dr. Naraynsingh-Chang, the draft technical report of DNV which noted that it was not clear why societal risk was not evaluated in the Risk Assessment Report, the cumulative impacts of the project and the relocation of the residents.

In response, the EMA submitted that it had considered all the relevant matters. Issues of health such as those raised by Dr. Naraynsingh-Chang were addressed. The advice of the Ministry of Health was sought and considered. There was no credible scientific evidence of any causal connection between the operations of ALNG and the health complaints of the residents. Notwithstanding this, the EMA applied the precautionary principle and inserted conditions in the CEC to protect human health and the environment. These conditions included the establishment of ambient air standards and stack emissions applicable to the cumulative impact of the ALNG facilities and other conditions dealing with noise, light and water. Stringent monitoring programmes were included in the CEC. The EMA submitted that the EMA

did more than was required of a responsible public authority faced with complaints which were not substantiated.

ALNG submitted that the EMA gave due consideration to all necessary matters before granting the CEC and took advice from suitably qualified personnel before granting the CEC. The EMA considered the public comments, the medical allegations of Dr. Naraynsingh-Chang and the comments of the independent expert, DNV. In addition, the EMA considered ALNG's reports of air quality. The EMA monitored air quality for 3 months over a two-year period from June 1998 - June 2000 and was satisfied that the standards set for ambient air quality in the CEC were well within international ambient air quality standards and protective of human health and the environment.

Section 36(1) of the Act provides guidelines for the issue of the CEC:

> "After considering all relevant matters, including the comments or representations made during the public comment period, the Authority may issue a Certificate subject to such terms and conditions as it thinks fit, including the requirement to undertake appropriate mitigation measures."

The CEC was issued nearly 16 months after it was applied for, and nearly 13 months after ALNG held its public meeting. This was 190 days after ALNG submitted the EIA in September 2002. The TOR was generated on the basis of extensive research and used input from sources as the European Commission and the United Nations Development Programme. It included World Bank Environmental Assessment Guidelines and was available for the public consultation held by ALNG.

The EMA established an Administrative Record and invited comments from the public. Doing so and making the TOR available for the public consultation were in accordance with the provisions of the Act.

The EIA documents were reviewed internally by the EMA and by a team which it established for this purpose. A wide range of disciplines was represented on that team. Comments (in some instances more than once) and recommendations on the EIA and a draft certificate of environmental clearance were received from the Ministries of Health, Agriculture, Labour, Energy; the Faculty of Medical Sciences, University of the West Indies; DNV; and the Trinidad Pilots and Berthing Masters Association. An article from "The Lancet" was obtained and considered; a draft of the CEC was prepared after the review team met in November 2002 and was commented upon by Rapid Environmental Assessments (2003) Limited ("REAL").

That draft was prepared after considering FFOS's comments and concerns (both its own and the residents') had been received. It was revised after receiving comments from Rapid Environmental Assessments (2003) Limited, as well as further information and comments from Dr. Acton Camejo (his unfinished report had been received), Mr. Dennis Pantin, Dr. Naraynsingh-Chang's report, DNV and ALNG. This all took place after a continuous process of collecting information and comment, and reviewing the draft.

I am not persuaded that the EMA failed to consider all relevant matters, or that it failed to consider them properly. These reports and comments dealt with all aspects of the matters raised by FFOS and the residents, as well as other parties. Not all of the input received by the EMA was uncritical of the EIA. Indeed, reservations, some in stronger terms than others, were expressed by e.g. DNV and the Ministry of Energy. In these instances (of reservation and criticism) further input was sought and considered.

2. The EMA misdirected itself and/or misapplied the law in the purported exercise of its discretionary powers to grant the CEC.

FFOS contended that the EMA did not correctly understand the law and therefore misapplied it in granting the CEC. There is no evidence of this. To the contrary, the evidence is that the EMA was very well acquainted with the law regulating its powers and discretion.

3. The EMA surrendered its powers, mandatory duties and functions under Section 36(1) of the Act by allowing its discretion to be dictated by private and/or political pressures.

FFOS contended that the EMA acted unfairly towards the affected residents by surrendering and/or ignoring its powers, mandatory duties and functions under Section 36(1) of the Act. It was submitted that the EMA allowed its discretion to be dictated by private and/or political and/or other pressures, and it therefore abdicated its functions and/or duties in exercising its powers given to it under Section 36(1). Alternatively, it allowed these pressures to impose a fetter on the exercise of its discretion under the Act.

It was further submitted that in any event the facts and circumstances which led to the grant of the CEC would reasonably give the appearance that it was because of personal and political pressures that the CEC was hurriedly and quickly granted. The EMA allowed its discretion to be dictated by a private consultant with a pecuniary relationship was not disclosed in the National Register, or in the affidavit of the EMA.

The further submission was that, in general, a relationship with an associated company of the same nature as would give rise to a real possibility of bias; if it was a relationship with the actual party, it was likely to give rise to the same real possibility of bias. I was referred to the decision in *Save & Prosper Pensions Ltd. v Homebase Ltd. & Peter J F Clark (2000) LTL 11/4/2000.* The EMA, it was submitted, allowed its discretion to be dictated by a private

entity not qualified in the natural gas products industry, REAL having no qualification in projects similar to that of ALNG Train IV.

In support of these submissions, FFOS relied upon the chronology of events, discussions and the correspondence which led up to the grant of the CEC, together with the other evidence in the case to show that the grounds upon which it seeks judicial review have been established.

The EMA vigorously denied these allegations. Mr. Martineau submitted that there was not one hint of evidence of delegation or surrender. In fact, he submitted, the evidence pointed to exactly the opposite. ALNG had complained to Dr Ken Julien that EMA's consideration of the matter was time consuming and excessive.

I should say here that whether the letters written by ALNG to the EMA complaining of the delay and saying (21st January 2003) that "… continued vacillation would be tantamount to an egregious default incapable of remedy"; and (8th May 2003) were intended to force a decision, may be open to interpretation. There is nothing to suggest to me, however, that they, or anything else done by ALNG, were designed to extract a favourable decision from the EMA.

In the event, Dr. McIntosh responded to this in his affidavit by saying that the EMA was not pressured by this and continued with their assessment and consideration.

Mr. Martineau maintained that FFOS had not discharged the burden of proving that the EMA abdicated its functions. There was no evidence of this, and the allegations of the pecuniary connection between DNV and BP (a party with an interest in ALNG) were too remote to be taken seriously. In any event

neither DNV or BP was the decision-maker, so that their relationship was irrelevant.

ALNG submitted that FFOS's position is untenable on the evidence because the EMA took all necessary matters into consideration, made its own enquiries and commissioned its own experts to evaluate the projects and the risk of harm. Also, the EMA commissioned DNV, consulted with various Ministries, and retained the services of Rapid Environmental Assessment (2003) Ltd. to assist in the process involving the grant of CEC. Further, by virtue of the CEC Rules, the EMA is responsible for settling the final Terms of Reference for the preparation of an Environmental Impact Assessment to be submitted by an applicant for a CEC.

In ALNG's view FFOS's submission is tantamount to saying that the EMA should prepare the EIA; that the onus is on the EMA to conduct tests for air quality, noise and light testing over a period of time prior to the granting of a CEC. This cannot be correct, for if this were so, there would be no reason to provide in the legislation that an applicant should submit an EIA.

It is well settled that a public body should "own" its functions and decisions, and not surrender them by acting under dictation, improper delegation or by operating an inflexible policy (see *Fordham, Judicial Review Handbook, 3rd Ed.* page 741). This does not mean, however, that a public body cannot seek and act on expert advice from independent bodies. In the course of arriving at a reasoned and reasonable decision, public bodies have a right to obtain and give great weight to the advice of expert bodies on technical matters. This is not considered an abdication of duty so long as the decision is not treated as conclusively determined by the expert bodies (see *R v. Tandridge District Council, ex. P. Al Fayed* [1999] 1 PLR 104, 110 D-F).

I agree with the submissions on behalf of the EMA and ALNG. There is no evidence that the EMA surrendered its duty to any of the independent third parties commissioned to review the EIA. The evidence shows a process of assessment and determination, and that the EMA considered the advice but acted independently. It gave greater weight to some of the recommendations than others and even disregarded some of the advice provided entirely. One example is the issue of the establishment of the buffer zone. The EMA declined to follow some of the advice given on this issue and decided that it was best for this plan to be developed by ALNG. None of that, however, demonstrates any surrender of its powers, duties or functions.

It is clear, therefore, that the EMA did not in any way surrender or abdicate its duties to any third party.

Similarly, if I may deal with it and this juncture, the ground of bias must also fail; as must the ground that the decision was tainted by bias, if there is any distinction to be drawn.

The allegations of DNV's bias and pecuniary connection are based upon nothing more than it, or its parent company, having provided services for an ALNG partner or shareholder. That evidence falls woefully short of what is required to demonstrate bias, whether real, actual or otherwise.

4. The EMA failed to apply the precautionary principle.

Mr. Maharaj contended that the EMA's mandate was set out in the National Environmental Policy, and that the EMA is required to implement the National Environmental Policy by virtue of section 30 of the Act.

Further, he submitted, Section 5.1.1. of this Policy requires the EMA to apply the precautionary principle in environmental impact assessments. That Section reads:

> *"The Precautionary Principle*
>
> Government policy on environmental impact assessment will adhere to the precautionary principle which states that if there are any threats of serious irreversible environmental damage, lack of full scientific certainty will not be used as a reason for postponing measures to prevent environmental degradation."

According to FFOS, the precautionary principle imposes an obligation on the EMA to take precautionary measures where:

a. there is a state of affairs which shows that there is a serious risk to human life; and
b. there is no scientific certainty that such a risk does not exist.

In this case, submits FFOS, the EMA should have required ALNG to produce scientific data and evidence to show that no risk existed. In the absence of such scientific certainty, steps should have been taken to remedy or prevent the risks. The EMA ought to have conducted scientific investigations into the following to verify that the alleged risks did not exist: -

a. The health concerns of the residents of the affected area;
b. The need to have a buffer zone in the affected area
c. Testing and monitoring of environmental conditions
    - Air
    - Water
    - Noise
    - Dust
    - Light
d. Emergency procedures
e. Relocation of residents

f. The EMA had a duty also to conduct relevant studies and verify allegations of environmentally related problems.

The EMA maintains that the precautionary principle was applied notwithstanding the absence of credible scientific evidence of a causal connection between the operations of ALNG and the alleged environmental and health risks. The conditions inserted in the CEC reflect its application. These conditions were designed to prevent environmental degradation, to establish standards designed to protect human health and the environment, and to monitor the cumulative impact of the operations.

ALNG also maintains that the principle was applied although the threshold set by the principle requiring preventative action was not crossed. Mr. Daly for ALNG relied on the case of *Monsanto Agricoltura Italia SPA v. Presidenza del Consiglio del Ministri [2003] ECR000.* In that case the precautionary principle was set out in great detail and he adopted the general statement set out by the European Court (at page 32, para 137):

> "…conclusive scientific evidence of the reality of the risk is not required. Action is appropriate even…based on preliminary findings. The enormous importance of human health as the object of legal protection accordingly lowers the threshold for triggering action by the State or the Community."

Senior Counsel, however, noted the limitations on the application of the principle as expressed by the European Court (at para 138):

> "On the other hand, the free movement of goods cannot be ignored in that assessment. For that reason, not every claim or scientifically unfounded presumption of potential risk to human health or the environment can justify the adoption of national protective measures. Rather, the risk must be adequately substantiated by scientific evidence."

ALNG's position is that the EMA applied the precautionary principle in its consideration of the CEC application. It considered the Hazard Assessment Report, appointed DNV to review the report and consulted with various Ministries on matters of health and the environment. The EMA also consulted with Rapid Environmental Assessment (2003) Ltd. on the CEC application, took advice from them and modified the draft CEC based on their suggestions.

Apart from this, submitted Mr. Daly, the EMA was not obliged to take any further preventative measures because the health and environmental concerns were not adequately substantiated by scientific evidence. The only evidence of these health and environmental risks was the report submitted by Dr. Naraynsingh-Chang. With respect to this report, ALNG submitted that by no stretch of the imagination can the applicant say that the report contained information which adequately substantiated a risk of injury to health from the existence of Train IV. The report was criticised as being subjective and unreliable by both Dr Persaud and Dr. Doon and therefore was an insufficient basis for invoking the precautionary principle.

The precautionary principle is included in the National Environmental Policy but only as a general statement of principle. It is difficult to translate it into specific commitments or requirements because it contemplates enormous financial burdens and foregone opportunities with no clear scientific justification. It must be directed to achieving sustainable development in a manner that is cost effective and not completely divorced from economic realities.

Sustainable development is the ultimate goal of the National Environmental Policy. Sustainable development is accepted internationally as an article of faith in environmental policy decisions. It refers to "…development that meets the needs of the present without compromising the ability of the future

generations to meet their own needs…" (See the accepted international definition- *The Brundtland Report - 1987 Report Of The World Commission On Environment & Development, Our Common Future*.) This is the overriding consideration in all matters involving the implementation of the precautionary principle.

The initial development of the precautionary principle is generally credited to the social democratic policies of West Germany in the 1970's. in the 1980's, the German Government used the *vorsorgeprinip* (precautionary principle) to justify the implementation of various policies designed to tackle acid rain, global warming and the pollution of the North Sea. The German concept of *Vorsorge* literally meant "beforehand or prior care or worry" and carries overtones of caution, good household management and provision for the future.

The first specific references to the precautionary principle at the international level appears in the 1985 Vienna Convention on Ozone Depleting Substances and the Declaration of the Second International North Sea Conference on the Protection of the North Sea. The principle crystallised and achieved universal acceptance in international law at the The United Nations Conference on Environment and Development in Rio, the Rio Declaration 1992 (see *Tromans "High Talk and Low Cunning"*: *Putting Environmental Principles Into Legal Practice* [1995] J.P.L.779).

There are varying opinions on the current status of the precautionary principle in international law. Some argue that it is still an emerging rule of customary international law, while others maintain that it is an established rule. The Supreme Court of India, for example, considers the principle to be "part of customary international law" (see *A.P. Pollution Control Board v. Nayado* 1999.S.O.L.Case No.53, para. 27).

The acceptance of the principle as a necessary consideration in environmental cases across the Commonwealth is evidence of its emergence as a common law doctrine. This was recognised by Stein J. in *Leatch v. National Parks and Wildlife Service and Shoalhaven City Council* (1993) 81 LGERA 270 at 279 (a decision of the New South Wales Land and Environmental Court): "In my opinion the precautionary principle is a statement of common sense and has already been applied by decision-makers in appropriate circumstances prior to the principle being spelt out." Similarly in *Vellore Citizens Welfare Forum v. Union of India* [1996] S.C. 2715, 2720, 2721, it was recognised that the principle has its genesis in the common law right to a clean environment. The Court there referred to *"Laws of England (Commentaries by Blackstone) Vol. III 4th ed. 1876, Chapter XIII - Nuisance"* and concluded: "Our legal system having been founded on the British Common Law, the right of a person to a pollution free environment is a part of the basic jurisprudence of the land."

The principle is regarded as a new legal response to the scientific uncertainties surrounding the capacity of the environment to cope with the increasing demands placed upon it. Its objective is to "protect the environment, as well as human life and animal and plant life, when no concrete threat to those resources have yet been demonstrated but initial scientific findings indicate a possible risk." The principle therefore sets out a rule for action in situations of uncertain risk where there is an inseparable connection between that principle and a potential risk to objects of legal protection (see *Monsanto* page 8).

There is a further matter to be taken into account when application of the principle is being considered. Indeed, it is a factor falling for consideration whenever foreign law, statutory or otherwise, is being examined to see whether it can either be of assistance in the interpretation of domestic law, or if it is applicable in this jurisdiction at all.

It is that social and economic conditions vary - sometimes widely - between different countries and the norms, the *mores*, of one - far less its law - cannot be transported lock, stock and barrel from one to another. That law must always be looked at in the light of prevailing local circumstances and adapted suitably, assuming this to be possible at all.

While Trinidad and Tobago may be regarded as socially and economically developed to a greater extent than some other countries, the conditions and resources here, whether, human, financial, physical or otherwise, cannot necessarily be equated with those those existing in, say, Europe or North America. Consequently, the high standards set, and met, there may not be realistic in the context of conditions and resources here.

This is reflected, or so it would appear, in the National Environmental Policy referring to threats of "serious irreversible" environmental damage, as opposed to "serious or irreversible".

There are three stages in the application of the principle.

First, before the precautionary principle is invoked, there must be a comprehensive scientific evaluation of any potential risk. The precautionary principle is usually invoked if, following this risk assessment, serious or irreversible threats of environmental damage are discovered. The risk assessment is a critical requirement as its purpose is to calculate the degree of probability of the threats of serious irreversible environmental damage. There must be an assessment of the severity of the impact on human health and the environment were the threat to occur, the extent to which there may be possible adverse effects, the reversibility of any adverse effects and the possibility of delayed effects (see *Pfizer Animal Health SA v. Council of the European Union* [2002] ECR 11- 3305 (T13/99) para 153). The National Environmental Policy of Trinidad & Tobago specifies that the risk or threat

must be "serious irreversible environmental damage", indicating that the threshold and the burden of risk demonstration is significantly higher in other jurisdictions where the risk is defined as serious or (my emphasis) irreversible environmental damage.

Second, the precautionary principle is only invoked where scientific opinion conflicts on the potential threat. Scientific uncertainty on the nature and severity of the threat is the second condition for the application of the principle.

The principle places the burden of proof on developers to prove that their actions will not cause serious or irreversible harm to the environment. It is therefore placed on the party who threatens the environmental status quo.

Third, where there is scientific uncertainty as to the existence or extent of the threats to the environment the authority or agency (in this case the EMA) may, by reason of the precautionary principle, take protective measures without having to wait until the reality and the seriousness of those threats become fully apparent. Measures aimed at preventing or containing the threats may be adopted.

There are no hard and fast rules on when to take action. Each case has to be considered on its own facts. The principle is not precise and I take note of the statements by Talbot J in *Nicholls v. Director General of National Parks & Wildlife* (1994) 84 LGERA 397 at 419 (another decision of the New South Wales Land and Environmental Court): "…the precautionary principle, while it may be framed appropriately for the purpose of a political aspiration, its implementation as a legal standard could have the potential to create indeterminable forensic argument. Taken literally in practice it might prove to be unworkable." Despite its imprecision, however, the principle remains a guiding one in our environmental policy.

The principle does not state clearly how strong a suspicion of a threat should before action is taken. To act on suspicion or doubt, however small, would amount to a requirement for full scientific certainty that there was no threat of serious irreversible damage. This would be just as unrealistic as requiring full scientific certainty of the existence of a threat. Therefore, a strict interpretation of the precautionary principle would appear unworkable and impractical.

The generally accepted interpretation of the principle is to act prudently when there is sufficient scientific evidence and where inaction could lead to potential irreversibility or demonstrate harm to future generations. The European Court made this clear in *Monsanto* (at page 26 para 102).

> "According to the precautionary principle, there is no need to provide complete proof of a risk to the environment or to human health; rather, protective measures are already justified where a preliminary and objective scientific risk evaluation gives reasonable grounds for concern that the potentially dangerous effects on the environment, human health, animal and plant health may be inconsistent with the community's high level of protection."

The European Court's interpretation of the level of scientific evidence is widely accepted and I agree with the statement in *Monsanto* (at para 138) that "…not every claim or scientifically unfounded presumption of potential risk to human health on the environment can justify the adoption of national protective measures. Rather, the risk must be adequately substantiated by scientific evidence"(my emphasis).

The question is raised as to whether the threshold was crossed requiring the EMA to invoke the principle. While I would say that it does not appear that in all the circumstances of this case there was sufficient scientific evidence to

substantiate the risk of serious and irreversible threats to the environment, human health and life, so as to trigger application of the principle, I do not think it necessary for me to decide this question. This is because there is insufficient evidence to enable me to conclude that the EMA failed to apply the precautionary principle. It appears to me that it did so in any event.

The CEC Rules and the procedure for environmental impact assessment involve all three aspects of the principle: risk assessment; scientific assessment of the risk; and risk management. The EMA identified the project as a potential threat to the environment and focused on areas of specific concern in settling the terms of reference. It considered the Environmental Impact Assessment, the Hazard Assessment Report and the Environmental Baseline Report. It sought independent analysis of these reports from a wide range of disciplines before granting the CEC. It obtained appropriate scientific evidence dealing with the concerns raised. It considered this evidence.

The CEC was granted subject to the imposition of an extensive list of conditions. These conditions were both protective and preventative measures. They also included monitoring programmes which were designed to compel ALNG to forward scientific data relating to specific environmental impacts to the EMA. It therefore cannot be said that the EMA failed to take precautionary measures in light of the scientific uncertainties of the nature and extent of the serious irreversible threats to the environment.

In my view, the principle was adhered to. The National Environmental Policy gives no express indication of what preventative measures should be taken. It is clear that the threat must be serious and irreversible and must be adequately substantiated by scientific evidence. The measures adopted are left to the discretion of the EMA. In the exercise of its discretion, the EMA considered the measures appropriate to the threats as identified by FFOS and by Dr.

Naraynsingh-Chang. Given the criticisms of the reliability of Dr. Naraynsingh-Chang's report, the EMA cannot be found to have ignored the principle nor to have acted illegally given the manner in which its discretion was exercised.

The "…preliminary and objective scientific risk evaluation…" did not give "…reasonable grounds for concern that the potentially dangerous effects…" might be inconsistent with the required standards of protection.

The precautionary principle having been applied, the arguments advanced that the decision was made in defiance of the precautionary principle, and that the failure to re-locate the residents constituted a failure to adhere to that principle must also fail.

5. The EMA acted illegally by granting the CEC and in so doing infringed the rights of residents to life, protection of law, respect for family and private life, and the right not to be subjected to cruel and unusual punishment

FFOS contends that the EMA erred in law by granting the CEC. Its decision amounted to an infringement of the fundamental human right to life, to be entitled to such procedural provisions as are necessary to give effect to the rights of individuals, to respect for the private and family life of individuals as guaranteed by Sections 4 and 5 of the Constitution of Trinidad and Tobago. I was referred to the judgment in *the Matter of an Application for Judicial Review Right Honourable Lord Saville of Newdigate Sir Edward Somers Justice William Hoyt (Sitting as Saville Inquiry) (Ex Parte A And Ors),* RV. [1999] EWHC Admin 747 (28th July, 1999) at pg. 14 para.37 of the transcript.

It was also submitted that the options available to the reasonable decision maker are curtailed when a fundamental right such as the right to life is engaged. It is not open to the decision maker to risk interfering with

fundamental rights in the absence of compelling justification. Even the broadest discretion is constrained by the need for there to be countervailing circumstances justifying interference with human rights. The courts will anxiously scrutinise the strength of the countervailing circumstances and the degree of interference with the human right involved.

FFOS also contended that an integral part of the right to life is the right to a healthy environment; that it is impossible for human life to survive without a healthy environment, and that Section 2(1) of the National Environmental Policy supports this submission. I was referred to *Francis Coralie v. Union Territory of Delhi* A.I.R. (SC 1981) 746 where Bhagwati J. said (at para 7): "But the question which arises is whether the right to life is limited only to protection of limb or faculty or does it go further and embrace something more. We think that the right to life include the right to live with human dignity and all that goes along with it, namely, the bare necessaries of life such as adequate nutrition, clothing and shelter over the head and facilities for reading, writing and expressing one self in the diverse forms, freely moving about and mixing commingling with fellow human beings."

FFOS also relied on the decision in *Rural Litigation and Entitlement Kendra v State of U.P.* A.I.R (SC 1985) 652 where Bhagwati J. (at p.656) said "This would undoubtedly cause hardship to them but it is a price that has to be paid for protecting and safeguarding the right of the people to live in healthy environment with minimal disturbance of ecological balance and without avoidable hazard to them and to their cattle, homes and agricultural land and undue affection of air, water and environment."

FFOS also submitted that Section 5(2)(b) of the Constitution prohibits cruel and unusual treatment, and the facts and circumstances of this case show that the impugned decisions and/or actions of the EMA amount to a contravention of this right. It was submitted that where the facts show that the lack and/or

absence of appropriate environmental measures and/or safeguards which results in threats and/or risks to human life and/or health and/or public safety, the Court is entitled to find that this fundamental right has been contravened. The European Court of Human Rights has entertained arguments on this issue but on the facts of the cases before it, it did not find in favour of the party putting forward the arguments. In support of this submission I was referred to the decisions in *Noel Narvii v. France, ECHR 28204/95 (Judgment of December 4th, 1995); In the case of Lopez Ostra v. Spain, ECHR 00016798/90 (1994);* and *LCB v. United Kingdom France, ECHR (Judgment of June 9th, 1998)*

FFOS also submitted that the EMA, in the exercise of its powers to grant the CEC, had a duty to effect such procedural measures as are necessary to give effect to the rights to individuals. The failure and/or omission of the EMA to take the necessary steps to ensure that there were no significant threats to the lives, health and safety of individuals and to the environment generally amount to a contravention of this right. I was referred to the decision in *Attorney General v Wayne Whiteman* (1991) 39 WIR 397.

It was further submitted that environmental degradation and circumstances which pose threats to human life, human health, public safety and the environmental generally, and which have the effect or can have the effect of preventing persons from enjoying their homes, or contravene their right to respect of private and family life. Senior Counsel relied on the European Court on Human Rights' decision in *Lopez Ostra v. Spain ECHR 00016798/90 (1994).* It was recognised there that severe environmental pollution may affect individuals' well-being and prevent them from enjoying their homes in such a way to affect their private and family life, even though it does not seriously endanger their health.

Mr. Maharaj submitted that where the activity impacts upon the fundamental rights of persons, there is a special obligation for the authority to specially consider that issue. Therefore, in its decision-making process the EMA had to consider the fact that this matter impacted upon the rights of the individuals in the community. Unless they could show that they gave consideration to that, there is an overriding weight for the decision to be set aside.

It was submitted on behalf of the EMA that the Applicant had not been given *locus standi* to allege a breach of the constitutional rights of others. Section 14 of the Constitution prescribes the procedure to be adopted where a person alleges that any provision of Chapter 1 of the Constitution has been, is being, or is likely to be, contravened in relation him. The inclusion of these grounds by FFOS is therefore misconceived. In any event, there is no evidence to support and contravention of the fundamental right to life under Section 4 (a) of the Constitution or any of the fundamental rights in Section 4(b), (c) or Section 5(2) or 5(2)(h) of the Constitution.

It is well accepted that if there has been, or may be, a breach of a constitutional right, the remedy lies against the State, not a private individual or corporation. There can therefore be no remedy obtained in these proceedings against the EMA for breach of a constitutional right. That is sufficient to dispose of this ground.

FFOS, however, also advances the argument that these rights constitute standards or benchmarks that are to be met when the EMA is considering an application for a certificate of environmental clearance.

I agree that these rights should provide some basis for guiding decision-makers. Indeed, the philosophy underlying the legislative regime is to some extent at least predicated upon them. The legislation is there, in effect, to protect those rights, even if not to the fullest extent claimed by FFOS and the

residents. The Act, for example, provides procedural steps that allow concerns and objections to be heard and considered; provides protection of the law; respect for family and private life; protection against cruel and inhumane punishment; and the right to enjoy a healthy environment.

While I accept the existence of certain common law environmental rights (to which I have already referred), I am reluctant to elevate them or categorise them together with those rights entrenched in the Constitution, despite also accepting that the latter is a living document which should be interpreted generously. The position remains, however, as acknowledged in Europe and India, for example, that these "rights" are subject to other considerations. I do not wish to embark here on an investigation as to whether the rights of an individual should prevail over those of the society generally, or vice versa. It is sufficient to say that issues of environmental control often involve the delicate balancing of competing social and economic interests, as well as the application of specialised expertise.

Furthermore, the inevitable trade-off between economic and ecological values is a subject matter which is inherently political. It is not for a court to rewrite the Constitution. I am not persuaded that I should attempt to do so in this instance. This is best left to the legislature.

Finally, the law in its existing state, quite apart from the Constitution, provides safeguards for the individual and his, or her, rights.

In the event, I am not satisfied that the decision made by the EMA ignored the common law rights of FFOS or the residents; nor that it was, or is, properly to be regarded as illegal. I am not persuaded that the EMA failed to understand correctly the law regulating its decision-making process, or that it failed to give effect to that law.

6. The EMA erred in law in wrongfully exercising its discretion in not holding a public hearing pursuant to Section 28(3) of the Act.

FFOS argued that the EMA wrongfully exercised its discretion by holding a public hearing only to report to the residents of Point Fortin how their concerns were addressed. On the 22nd November, 2002 the residents had expressed their concerns about the project and the EIA to the EMA. They contend that Mr. Parsanlal gave them the assurance that their complaints would be investigated and further consultation would take place before the CEC was granted, but that this never happened. The next meeting was held after the CEC was granted and its purpose was to only inform the residents of the terms of the CEC.

FFOS submits that the EMA was under a duty to hold the public meeting for further discussions in light of the written comments it received on the EIA. This failure to exercise its discretion constituted a denial of the residents' rights to participate in the decision making process for the grant of the CEC. It was submitted that this is an ongoing process in which the residents were entitled to participate at all stages, as part of "the democratic process".

The EMA maintains that there was no promise to hold another meeting with the residents before the CEC was granted. What Mr Parsanlal promised was to return to Point Fortin and explain to the residents how their concerns had been treated with when the EMA was deciding the application for the CEC, whatever and whenever that decision might be.

Mr Martineau submitted that the consultation held on 22nd November 2002 was fair, took place while the proposal for the CEC was still in its formative stages, and provided sufficient information to enable those participating in the consultation to deal satisfactorily with the matters raised in the EIA. The EMA had a discretion with respect to holding public consultations. They held

one public consultation before and one after. He submitted that this is evidence of an authority bending over backwards to be fair. The complaints were taken seriously. The existing legislative regime does not contemplate a second consultation before granting the CEC. He conceded, however, that there may be circumstances in which the EMA may think it correct and proper and just to return to the public debating forum as a result of what it has heard and advice it has received. Those would be exceptional circumstances. That, however, was not the case here.

Section 28 of the Act sets out the procedure for obtaining public comment.

> 28(1): where a provision of this Act specifically requires compliance with this section, the Authority shall-
>
> > (a) publish a notice of the proposed action in the *Gazette* and at least one daily newspaper of general circulation-
> >
> > > (i) advising of the matter being submitted for public comment, including a general description of the matter under consideration;
> > >
> > > (ii) identifying the location or locations where the administrative record is being maintained;
> > >
> > > (iii) stating the length of the public comment period; and
> > >
> > > (iv) advising where the comments are to be sent;
> >
> > (b) establish and maintain an administrative record regarding the proposed action and make such administrative record available to the public at one or more locations.

(2) The administrative record required under subsection (1) shall include a written description of the proposed action, the major environmental issues involved in the matter under consideration, copies of documents or other supporting materials which the Authority believes would assist the public in developing a reasonable understanding of those issues, and a statement of the Authority's reasons for the proposed action.

(3) The authority shall receive written comments for not less than 30 days from the date of notice in the *Gazette* and, if the Authority determines there is sufficient public interest, it may hold a public hearing for discussing the proposed action and receiving verbal comments. "

The EMA has a broad discretion in determining whether and when to hold public hearings. There is no express provision requiring follow up public hearings before granting the CEC. That is left up to its discretion, and will depend on the circumstances of the case and the severity of the concerns. Follow-up procedures may be considered necessary to fulfil the intention of the section, which is to incorporate the affected community in the decision-making process by way of having this concerns and opinions. Community involvement is one manifestation of the holistic approach adopted by the Act. Environmental degradation has a human face as well; it is not limited to merely land, water and air. Communities frequently face the most severe impacts but are often the least involved in making environmental decisions that affect their well-being.

Section 28 attempts to remedy this by allowing affected communities more meaningful participation in decisions that affect them. It also provides communities with valuable information about the potential health and environmental effects of the project. It affords persons who may be affected the opportunity to voice their concerns, views, comments and

recommendations and, correspondingly, places the EMA under a duty to consider what they say. These persons are, in essence, given a fair hearing.

In essence, it aims to achieve environmental justice, which is "the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies."

I do not accept that the discretion was exercised unreasonably or in a capricious manner. The public was given ample opportunity to put forward its views, suggestions and recommendations. There was no compulsion on the EMA to hold a further meeting after that of 22nd November 2002. It had further communication with FFOS, at or during which the concerns of both FFOS and the residents were clearly articulated. The matters they raised were considered; they were not ignored. The EMA did not consider that a further public meeting for the purpose of discussion was needed, whatever may or may not have been said by Mr. Parsanlal at the meeting of 22nd November.

The rules of natural justice do not necessarily require that there be a formal, oral, hearing in public. It is sufficient if those affected, or likely to be affected, are put into a position that allows their views and opinions to be heard, to be ventilated fully, and that those views and opinions be considered properly in the decision making process. There is no requirement for ongoing public debate.

The EMA was fully aware of the serious complaints and concerns raised by the residents and the public and exercised its discretion in the manner which it considered most appropriate in the circumstances.

There was therefore no illegality, procedural impropriety, or irrationality in not holding a second public meeting for the purpose of further discussion.

It must be remembered that the EMA considered that the consultation process had been accomplished in three stages. First, the ALNG public meeting; second, it established the Administrative Record and comments on the EIA were invited from the public; third, the EMA held its public meeting of 22nd November 2002. There was also correspondence received from FFOS, as well as Dr. Naraynsingh-Chang's report. In those circumstances it cannot realistically be said that FFOS and the residents were not afforded the opportunity to put forward their views. Further, the evidence is that those views were in fact considered.

7. *The EMA breached its duty by granting a CEC that did not adequately protect the public, or was ambiguous and uncertain.*

FFOS contends that the CEC was also ambiguous, inadequate, vague and contained meaningless conditions. It was an unreasonable and irrational decision of the EMA to grant the CEC upon reliance of these conditions to protect human life, human health and the environment generally from the risks associated with Train IV.

The EMA and ALNG on the other hand, submit that the CEC was not ambiguous, inadequate, meaningless or vague. It protected the public adequately.

I do not consider the CEC to be vague or uncertain or meaningless. The conditions inserted reflect the process of consultation, gathering of information and advice from parties considered by the EMA best placed to provide all of this, as well as consideration of the information, advice and views received.

The conditions set out in the CEC are wide-ranging and address all of the concerns raised by FFOS and the residents.

The monitoring requirement is not in my view unusual and is designed to cater for differing situations as and when they may arise. Requiring ALNG to monitor and report does not of itself result in the CEC falling into any of the categories of default or omission put forward by FFOS.

The requirement that certain plans and programmes be prepared by ALNG and submitted for approval in no way alter my conclusion. Those conditions were themselves sufficiently specific. There was no inadequacy so as to make the decision illegal or, I might add, irrational.

8. The EMA failed to establish a buffer zone so as to give effect of doctrine of precautionary principle.

I have already dealt with the issue of implementing this principle. It is sufficient to say here that the EMA effectively applied the principle, even if it was under no obligation to do so.

Further, the actual establishment of the buffer zone was dependent on the plan put forward by ALNG and submitted to the EMA prior to commencement of operations. Obviously, the EMA would have to approve this plan, but to say that doing so would constitute a conflict of interest as between ALNG and the public is incorrect. Approving (or rejecting) proposals and plans put forward by developers is its very *raison d'être.*

Additionally, it may not always be practicable to require the actual establishment of a buffer zone as a condition precedent to the issue of a certificate of environmental clearance. What is critical is ensuring that preventative or remedial plans and remedies are formulated prior to the commencement of operations, and it would appear that this played at least a part in the decision to include this condition.

9. The EMA contravened Sections 2, 6, and 36(1) of the Act.

FFOS contends that the CEC was not issued in accordance with the provisions of these sections of the Act.

The submissions are that while these proposals permit to the Board of the EMA to appoint a Managing Director and to delegate any of its functions to him, there is no evidence that this was done, or that the Board itself issued the CEC. Further, the CEC is signed by the Managing Director who had no power to do so.

Further, even if the Managing Director has the power to do so, then he abused that power by exercising it in a manner which was procedurally improper and in a manner that frustrated the legislative policy and objectives of the Act; committed errors of law; and was unreasonable.

The EMA relies on the uncontroverted affidavit evidence of Dr. McIntosh who says that it was the EMA who issued the CEC on 6th June 2003. That in my view disposes of the issue. It is to me immaterial who signed the CEC, and whoever signed it must obviously done so on behalf of the EMA – it could not be otherwise. There is nothing to suggest that the CEC was granted other than in accordance with the procedural rules of the Act and/or the CEC Rules.

Rule 7(1) of the CEC Rules provides for a certificate of environmental clearance to be in a form specified by the EMA and to contain certain information. The Rules, however, do not specify the manner in which the certificate is to be signed or that it be signed at all.

The decision to issue the CEC was therefore *intra vires*. As to the submissions relating to the procedural impropriety and the like, there is

nothing to demonstrate that the manner of making that decision was to frustrate legislative policy or the objectives of the Act, or that Dr. McIntosh committed errors of law, or that it was unreasonable.

10. The EMA did not have all the information required by Section 36 of the Act.

Section 36 requires the EMA to consider all relevant matters, including the comments and representations made during the public comment period. The evidence is that this was done and, also, that relevant matters were raised outside this period were also considered.

There is nothing to satisfy me that there was any relevant information to be obtained but which the EMA did not receive, much less ask for. None at least, which would vitiate its decision or the process by which it was made.

11. The EMA arbitrarily exercised its powers in defiance of the decision making process.

I can find no arbitrary exercise of power, no abuse of its power, no unfairness by the EMA as was the case e.g. in *R v. North and East Devon Health Authority; ex P. Coughlan* [2000] 3 All ER 850. It adhered to the provisions of the Act and the CEC rules during the decision-making process. There is no evidence to satisfy me that the EMA exercised its powers arbitrarily.

12. The EMA did not consider and assess the necessary risks so as to properly determine whether the proposed activities posed a risk to human life, health, public safety and the environment generally.

This would appear to be a sub-set of the ground raising the constitutional rights of the residents. In any event, I have come to the conclusion that these

risks were sufficiently assessed so as to enable the EMA to determine properly whether they posed the alleged threats. There are e.g. specific provisions in the CEC relating to relocation, buffer zone, air quality and noise pollution. Specifications and monitoring requirements are spelled out which have not been shown to be irrational.

13. The EMA failed to investigate the risks to adjoining residents.

Again, the evidence is these risks were investigated and provided for in the CEC.

14. The EMA failed to conduct proper air quality etc. testing and to consider the results of these tests.

This issue is dealt with in greater detail in the context of the cumulative impact assessment issue. It is sufficient to say here that such testing as was practicable was in fact carried out and that monitoring of future levels was provided for. There does not appear to be any contention that certain data were available for the years 1998 - 2000 and that this data, and any other relevant data then available, were considered.

15. The EMA granted the CEC in wrongful exercise of its discretion and/or acted in bad faith.

As set out elsewhere, I have come to the conclusion that there was no wrongful exercise of the EMA's discretion.

I have also come to the conclusion that the decision was not contrary to the objectives of the Act, or of its policy.

As to acting in bad faith, I can find no evidence of this.

16. The EMA defied the doctrine of precautionary principle.

I have already set out my conclusions on this principle, its applicability and application. The EMA did not defy the doctrine.

17. The EMA failed to require the relocation of residents.

The CEC required ALNG to develop a plan for establishing a buffer zone but did not require the actual relocation of residents. It is clear, however, that any relocation will depend on, or be linked to, the establishment to a buffer zone.

As will be seen presently, I have come to the conclusion that not requiring the establishment of a buffer zone as a condition precedent to the issue of the CEC did not vitiate the decision-making process. Clearly, the EMA supported relocation, but that was only if it were to be found necessary on receipt of a buffer zone plan or if other circumstances warranted it.

Similarly, the failure of the EMA to require actual relocation did not constitute a failure to adhere to the doctrine of precautionary principle, given my conclusions as to the latter which I have already set out.

18. The EMA failed to consider properly or at all whether proper arrangements were in place to cater for accidents or emergencies.

Apart from the CEC requiring automatic shutdown of the facility in certain circumstances, it required ALNG to develop an Emergency Preparedness and Response Plan and submit it to the Ministry of Energy prior to the introduction of hydrocarbons into Train 1V. Clearly, this plan required approval prior to commencement of operations. It is also clear that such a plan already existed in relation to Trains I, II and III, and that in relation to

Train 1V such a plan would be an incremental process and not one which had to be developed *ab initio*.

The CEC also required ALNG to prepare and implement education and awareness programmes to ensure the residents were fully informed of the risks. Also, that they were able to participate in plans and procedures to deal with emergencies. These programmes were to be approved by the EMA prior to the commencement of operations. It is also clear that similar plans had been prepared and implemented in relation to the operations of Trains I, II and III.

The objective was obviously to ensure that these plans and programmes were in place prior to the commencement of operations, since they would not likely be required prior to that. It was a decision made in the light of the circumstances then prevailing, and the CEC's long gestation period must have had some bearing on this. I do not agree that the proposals should necessarily have been submitted to the EMA prior to the issue of the CEC, nor that there must be some form of public consultation on this. As I have said, such plans and programmes already existed in relation to Trains I, II and III and in my view the residents must have been sufficiently sensitised to these matters already.

Additionally, if the methodology of relocation is to be opened to public debate, then there is potential for further delay. Actual relocation would in any event be a matter for ALNG to take up and resolve with the individual homeowners.

19. The issue of the CEC was in excess of the EMA's jurisdiction.

Nothing has been put before me to persuade me that this was so. The EMA is clearly vested with authority to issue such certificates. It did so and did not

do so in excess of that authority, or the manner in which it was to exercise that authority.

In summary, I am not satisfied that the issue of the CEC was illegal. I can see no misunderstanding by the EMA of the law regulating its decision-making power, or that effect was not given to it. I find no abuse of power, nor of acting on bad faith, nor of bias.

Irrationality

The EMA's decision to grant the CEC was irrational and unreasonable because it: -

1. *failed to deal with the cumulative impact*
2. *failed to deal with the health concerns of nearby communities*
3. *failed to deal with specific environmental complaints such as light*
4. *failed to deal properly with the question of a proper emergency procedure applicable to nearby communities*
5. *introduced the notion of a buffer zone but ignored the specific health and environmental complaints of the residents*
6. *left it up to the developer to address the mechanisms for establishing the buffer zone*
7. *failed to require relocation of the residents*
8. *failed to consider properly or at all whether proper arrangements were in place to cater for accidents and emergencies*
9. *The CEC was vague, inadequate, and contained ambiguous and uncertain terms*
10. *failed to require independent third parties to monitor air, water and noise but instead left it up to ALNG*
11. *failed to require light and heat monitoring*

Irrationality is defined as "Wednesbury unreasonableness". It applies to a decision which is so outrageous in its defiance of logic or of accepted moral standards that no sensible person who had applied his mind to the question to be decided could have arrived at it.

A decision is irrational in the strict sense of that term if it is unreasoned; if it is lacking in ostensible logic or comprehensible justification. Instances of irrational decisions include those made in an arbitrary fashion that may be described as "absurd" or perverse".

1. The EMA failed to deal with the cumulative impact

FFOS contends that the EMA acted unreasonably and unlawfully in granting the CEC without adequate consideration of the cumulative impact of Train IV in the light of Trains I, II and III. Consequently, the EMA breached Rule 10(e) of the CEC Rules which imposes a mandatory duty on the EMA to identify and assess the effects of Train IV on the environment:

> *Rule 10:* An EIA required by the authority under section 35(4) of the Act shall be carried out by persons with expertise and experience in the specific areas for which information is required and may, where appropriate include the following information:
>
> ……
>
> *(e):* an identification and assessment of the main effects that the activity is likely to have on the components of the environment, including:
>
> (i) human beings;
>
> (ii) fauna;
>
> (iii) flora;
>
> (iv) soil;

(v) water-surface and ground;

(vi) air;

(vii) the coast and sea;

(viii) weather and climate;

(ix) the landscape;

(x) the interaction between any of the foregoing;

(xi) material assets;

(xii) the cultural heritage;

Senior Counsel for FFOS submitted that the term "effects" in Rule 10(e) is defined in Rule 2 to include cumulative effects:

> *"Rule 2: "effects"* includes direct and indirect, secondary, cumulative, short, medium and long term, permanent, temporary, positive, negative and synergistic effects."

Mr. Maharaj adopted the definition of "cumulative effects" accepted by the Court of Appeal in *Bow Valley Naturalists Society v. Canada (Minister of Canadian Heritage)* [2001] 2 F.C. 461, which had accepted the Canadian Environmental Assessment Agency's definition, the expression not having been defined in the Canadian Environmental Assessment Act. The Agency defined "cumulative environmental effects" as "the effects on the environment, over a certain period of time and distance, resulting from effects of a project when combined with those of other past, existing, and imminent projects and activities."

The guidelines contained in the Canadian Agency's Reference Guide: "Addressing Cumulative Environmental Effects" were also relied on:

> "Only likely cumulative environmental effects must be considered. Projects or activities which have been or will be

> carried out must be considered. However, only approved projects must be taken into account; uncertain or hypothetical projects need not be considered. The Agency's Reference Guide suggests, however, that "it would be prudent to consider projects or activities that are in a government approvals process as well."

Mr. Maharaj argued that the EMA's failure to take a hard look at the cumulative environmental effects of the Train IV operations rendered its decision unreasonable. He relied on the learning on assessing cumulative effects set out in *Neighbors of Cuddy Mountain v. United States Forest Service Case*: [1998] 137 F 3d. 1376.

> "In accord with NEPA, the Forest Service must "consider" cumulative impacts. To "consider" cumulative effects, some quantified or detailed information is required. Without such information, neither the courts nor the public, in reviewing the Forest Service's decisions, can be assured that the Forest Service provided the hard look that it is required to provide…
>
> General statements about "possible" effects and "some risk" do not constitute a "hard look" absent a justification regarding why more definitive information could not be provided. See *e.g. Inland Empire 88.F. 3d. 764* (noting that "NEPA does not require the government to do the impractical.")
>
> Nor is it appropriate to defer consideration of cumulative impacts to a future date: "NEPA requires… consideration… *before* the action takes place." *City of Tenakee Springs* 915 F. 2d at 313 (emphasis in original)."

FFOS contends that the EMA failed to deal adequately with the cumulative effects of the project and that this rendered the grant of the CEC unreasonable. The EMA, it is submitted, did not have any scientific data or

evidence of the effects of the existing operations on health and pollution. If the EMA could not assess the existing effects, it was not possible for the cumulative effects to be adequately dealt with.

Senior Counsel submitted that in order for the EMA to have properly considered the cumulative effects of Train IV on the environment, it would have required data on environmental conditions such as air, water, light and noise. This data would have been required in respect of four main matters:

1) conditions existing within Trains I, II and III.
2) Conditions in areas from other operations that combine with environmental conditions of trains I, II and III.
3) Expected environmental conditions from Train IV.
4) Expected environmental conditions from other future activities in the area.

FFOS contends that the EMA was not in possession of any monitoring data for air quality except for Train I for the period 1998-2000. There was therefore no yardstick by which the EMA could compare the ambient air quality in the area against international ambient air quality standards. The EMA failed to exercise the "hard look" as required by *Neighbors of Cuddy Mountain* because there was no detailed and quantified information/standards by which the cumulative effects could be reviewed.

The EMA's assessment was also inadequate because it set air and noise standards without considering the existing level to which sources outside of the ALNG facility would have to be added. The EMA failed to consider the levels from those sources.

The EMA maintains that the cumulative effects of Train IV were considered.

Mr. Martineau noted that the four matters referred to by FFOS were not specifically pleaded and that the motion is limited to the cumulative effects of Trains I, II, III and IV. He distinguished *Neighbors of Cuddy Mountain* and *Bow Valley* on the basis that they were decided under a different legislative regime. He maintained that the EMA considered the cumulative effects and referred to criteria of the evidence to demonstrate how this was done. Among others, he referred to the following exhibits (I set these out in some detail since they are also helpful in respect of certain other issues):

The Environmental Impact Assessment:

> *"The Executive Summary-ES1:* The EIA studies the extent of environmental and social impacts arising from the proposed construction and operation of Train 4 and also examines the cumulative impacts of the operation of Trains 1,2/3 and 4 at the Trinidad LNG facilities on the site and surrounding communities.
>
> *The Operational Phase 5.3*- The following sections describe the potential impacts of Train 4 project during its operation…Where deemed necessary the impact assessment and mitigation plans take into account likely changes to baseline conditions of the environment, ambient background conditions as well as projected emission levels from Train 2 and 3. This principle was adopted such that the cumulative impact of all four trains is appropriately investigated and a corresponding level of management and mitigation will be employed.
>
> *Air Quality 5.3.1*- Atlantic LNG undertook air dispersion modelling which evaluates potential off-site concentrations of criteria pollutants originating from the operation of a 4-Train facility…the Model takes into account the 3-Train operation, after which emissions from new sources were added to represent Train 4. Background levels of all pollutants were also included, to represent the contribution of other sources in the general vicinity.

Table 5-4, "Maximum Predicted Concentrations For 4-Train Operation" represents the modelling results for each pollutant for the four-train operation.

Predicted off-site concentrations are compared to the U.S. EPA National Ambient Air Quality Standards (NAAQS) and the World Bank Guidelines in Table 5-5 and are found to be well below the latter.

Appendix E- Air Dispersion Modelling of Criteria Air Pollutants- Table 5-"Maximum Predicted Concentrations For 4-Train Operation," presents the modelling results for each pollutant for the four-train operation.

Table A- These samples represent the background concentrations that exist the vicinity of the plant.

Air Quality- 5.2.1.-The anticipated air quality impacts during construction relate dust(particularly during earthworks) and exhaust emissions from construction equipment.

Construction work on Trains 2 & 3 started in March 2000, at which time Train 1 was already in operation. Air quality monitoring data from the site can be referenced in chapter 8 of the Environmental Baseline Report. The air quality monitoring from the third quarter of 2000 to the present time represents ambient conditions cumulative of Train 1 operation, construction of Trains 2 & 3 plus other (offsite) contaminant sources in the Pt. Fortin area.

Surface Drainage 5.3.3-…. The surface runoff from the Train IV site and the contributing run off from the Trains 1-3 areas will increase the flow into the Municipal Drain from 4.0m3/s to 12.9m3/s. In order to ensure that bank overflow and flooding is prevented, the new section of the Municipal Drain will be sized to accommodate this added flow and a suitable freeboard together with the backwater effects during the high tide conditions.

The cumulative peak discharge from the new outfalls to the Gulf of Paria …are estimated to be 3.11m3/s …and 5.4m3/s …respectively.

5.3.4 Water Quality- The operation of Train 4 will produce liquid wastes which will be treated to meet regulatory requirements and discarded through several outfalls into the Gulf of Paria and the Municipal Drain. Among the sources of liquid wastes from the Train 4 operations are wastewater from regeneration of the demineralisation unit, process wastewater, sanitary sewage, potentially contaminated storm water from process and utilities areas, storm water from the LNG tank and refrigerant storage areas and the cold end of the process area. As the new outfalls are integrated with existing drainage network, the effluent from the Trinidad LNG Facilities discharged to the receiving water bodies will meet the discharge limits set by the Project Standards and the regulatory requirements.

5.3.7 Noise- A noise modelling study was undertaken for a 4-Train operation, which took into account background noise conditions as indicated by historical monitoring. A summary of the noise modelling study is presented in Appendix F. This study projected the noise levels from Trains 2 and 3 operation as well as Train 4. The results show the general compliance with the Noise Pollution rules at the boundaries of the Trinidad LNG facilities is achieved with the use of specific noise attenuating measures.

Appendix F- Results of the noise study for the ALNG facility, Point Fortin.

F.1. Introduction… Measurements were taken to establish a baseline with Train 1 in operation. From this data sophisticated computer models were then created to predict the future total noise emissions when Trains 2 & 3 would be in operation to establish the background for the increment of Train 4 operation.

F.2.1 Noise Emissions- In order to assess the noise emissions from the Train 2, 3 and 4 when in operation the existing noise

emissions from train 1 were measured. The data collected was used to construct an environmental noise model of the noise emissions of Train I. The model results were compared to measure data collected, both on and off site. Having obtained a calibrated noise model of train 1 the data was used to construct noise models of Train 2,3, and 4. Where appropriate, the model was corrected to allow for the various engineering changes implemented in the future Trains.

F.2.6 Model Results- Table 1: "Trains 1 through 3 +5 dBA vs. Predicted Noise Emission for all 4 Trains" provides a summary of the results from the modelling exercise. It shows the cumulative noise from Trains 1 through 3. It also shows the predicted levels from all four Trains as compared to the target levels at the noise receptors based on the Noise Pollution Control Rules 2000.

A graphical illustration of the predicted noise levels from all four Trains is provided in Figure F-1.

5.2.7 *Vibration and Noise*-Potential sources of noise and ground vibration during construction of Train 4 will come from pile driving activity and heavy gear earth moving equipment. The following is discussion on the extent of impact of these activities and actions which will be taken to mitigate against unacceptable limits both within the construction area and the surrounding communities.

5.2.7.1. Ground Vibration-It should be noted that the construction of Trains 2 and 3 process plants were being undertaken adjacent to the Train 1 plant which is operational. As such very strict control is exercised on any construction activity which can produce ground motion that would impact on sensitive equipment like generators and compressors of the operating Train. Atlantic LNG demanded very stringent quality control procedures from its EPC contractor during construction so as to detect and eliminate any ground motion that may prove to be harmful for equipment in use for LNG production. For example, when pile driving is done near existing

structures and equipment, monitoring is done to ensure that excessive vibration is not being transmitted to that structure. If any vibration is detected to be too high for such sensitive and costly equipment, then the activity will be stopped and re-examined with a view of completing it by a method that is more acceptable and which results in less ground motion.

During the construction of Trains 2 and 3 the EPC contractor monitored ground vibration during concrete piling near the boil off gas compressors and the operating plant and no measurable effects were observed. The concrete containment wall for the LNG Tank 3 and its concrete floor screed were not affected by sheet piling for the Train 3 sump which is adjacent.

It is expected that construction activities for Train 4 will peak while the first three Trains are operating. Thus very stringent quality control procedures will be maintained for Train 4 construction activities and they will be closely monitored to ensure that adjacent operating equipment are not disturbed or affected.

Vibration from pile driving, as a result of strict monitoring inside the fence, is not expected to affect buildings outside the site perimeter. In addition, as such activity would have stopped if it were deemed to have an impact on LNG production equipment which is on-site and much closer to the source. Piles were driven during the construction of the tanks for Trains 1, 2 and 3, and there were no verifiable claims of building damage caused by those activities.

5.2.7.2 Noise during construction- During the construction phase of the project, there will be many activities which will require the use of heavy equipment and machinery. The operation of these equipment as well as piling will be the primary source of noise during construction. The noise monitoring during the construction of the first three Trains (see Figure 5-5) indicates that sound pressure levels during the day were below those stipulated in the Noise Pollution

Control Rules for the "General Area". During the night, this stipulated limit was exceeded only in the first quarter 1999.

5.3.5.8 Visual Impacts- Train 4 of the Trinidad LNG Facilities includes two flares: Marine Flare and Wet & Dry Gas Flare. An additional Wet & Dry Gas Flare is being added for Trains 2 & 3, and yet another will be added for Train 4. The Marine Flare is used when loading the LNG Tankers, and the use of this flare is expected to decrease from previous Trains because an additional Boil-off Gas Compressor (to recover the loading LNG vapour) will be installed. The Wet & Dry Gas Flares are used very rarely and occur (during times of upset). Their use is not expected to increase, as plant shut-downs should not become more frequent- Generally, the site presents an industrial appearance consistent with neighbouring industry and the zoned land use.

5.3.6 Public Health and Safety

5.3.6.1 Public Health- The emission standards to which the plant will be designed and operated are set well below threshold levels that public health specialists consider safe for long-term exposure by the public.

Atlantic LNG has provided emergency health care facilities onsite which reduces the potential demand on the public health services. The fire station at the Trinidad LNG Facilities is equipped with a dry chemical/foam fire tender and high expansion foam trailer. It is currently manned by a contracted Emergency Response Team consisting of trained fire fighters and first aiders. All employees on the operating LNG Plant are trained in incident fire fighting, first aid and CPR.

Atlantic LNG has in place an Emergency Response Plan for the Trinidad LNG Facilities and conducts at least one full-scale simulation exercise, involving all civil emergency response agencies, on an annual basis since 1998. An Atlantic LNG Emergency Response Team

is also trained in advanced fire fighting, advanced first aid, pre-hospital trauma management and emergency extrication. Refresher training is also conducted.

The officers of the Point Fortin Fire Station also make frequent visits to the Trinidad LNG Facilities to familiarize themselves with the plant layout and the on-site equipment. The last visit was made in June 2002-Four local firemen were also trained alongside Atlantic LNG employees in LNG fire fighting.

5.3.6.2 Public Safety- A Hazard Assessments Study was done for each previous Train and one has also been done for Train 4. The Train 4 Hazard Assessment is submitted as a Supplement to this E1A (See Section 1.1). The Hazard Assessment for Train 4 estimates the risk of Train 4 operation as well as the cumulative risk of all four Trains within the Trinidad LNG Facilities.

Essentially, the study demonstrates that the 4-Train LNG Facility will be designed, constructed, commissioned, operated and maintained in a safe manner and in accordance with recognised standards and codes of practice. The study quantified the risk of occurrence of potential industrial hazards (spills, fires, explosions and releases) operation of the LNG facilities. The study concludes that the individual risks associated with all four trains do not exceed the limits established during the planning for Train 1.

In order to effectively respond to hazard incidents, Atlantic LNG has also developed an onsite Emergency Preparedness and Response Plan. The major potential incidents that have been identified and addressed by the Plan are:

Fire / Explosion

Major Gas Release

Major Liquid Hydrocarbon Spillage

Incident at Loading Terminal

Pipeline Incident

Medical Incidents

Bomb Threats

Hazardous Material Spills

Natural Hazards

Incidents Originating from Neighbouring Facilities

Details of the Hazard Assessment study and the Company's Emergency Preparedness and Response Plan can be found in the Supplement to this ElA.

The Hazard Assessment Report. This is no less comprehensive a document. In particular, the *Outline Risk Analysis* (Section 6, Page 53) takes into account all equipment on the LNG Facility site (the 3-Train LNG Facility covered in Ref 1.2 and the additional features associated with the Train 4 facility) in order to estimate the overall impacts from the entire LNG operation at Point Fortin.

In the light of all this, submitted Mr. Martineau, it cannot be said that there is no evidence that the EMA did not consider the cumulative effects. There was ample material as to this and, as will be seen, it was considered by the EMA. The EMA carried out a proper assessment exercise and did not merely rubber-stamp the EIA.

Mr. Martineau then referred to Dr McIntosh's evidence at paragraphs 69-76 of his affidavit: "Prior to the application for the CEC for Train IV, the CEC process did not apply to the activities of Trains I, II, III of ALNG. The EMA had no evidence by which it could link the alleged pollution from the plant to health problems in the community. The CEC for Train IV set conditions for the cumulative operations of the plant. Limits were set for noise, air and water pollution emitted from the entire plant. If through monitoring, pollution from the existing plant is documented and established, the CEC would require that ALNG reduce these pollutants to levels that would protect human health. As

to paragraph 29 of the Aboud's affidavit, the EMA set conditions in the CEC that require ALNG take account of the cumulative impact of air and noise pollution and meet standards for the entire operation. The EMA is satisfied that as long as the CEC conditions are met the existing setback distances will be adequate from an environmental point of view."

Mr. Martineau emphasised that there is evidence that cumulative impacts were considered in the EIA report and more importantly, there is abundant evidence that the EMA considered this evidence properly. He then referred to certain correspondence.

First, a letter of December 23, 2002- from the EMA to ALNG reviewing a number of issues to be addressed before the CEC application could be determined. Some of them were:

Description of the environment:

> "-Baseline data collected before Train 1 was established was to be provided and compared with current data.
>
> -The efficiency of the process of Train 4 was to be determined including carbon dioxide loading in combination with other existing and proposed trains (1, 2, & 3). The technology proposed must be compared to other existing technology for this process from an environmental perspective to determine the best available technology.
>
> -The project needed to be examined in a cumulative manner as a complete project with pipelines, trains and jetty.
>
> -Clarification was needed as to whether the impacts identified and the classification of these impacts have been done before or after the implementation of mitigating measures. Impacts should be considered both before and after mitigation."

Second, a letter of January 7th, 2003 from the Ministry of Energy to the EMA and ALNG, requiring evaluation of EIA reports, risk assessment and supporting studies for Train 4 project.

As to cumulative impacts, this letter noted that ALNG had segregated the total Train IV expansion project which incorporated new LNG train and storage facilities, cross country pipeline, coastal reclamation and an additional jetty for the purpose of separate CEC applications:

> "This approach has generated several EIA documents to deal with separate aspects of the overall project. In assessing the EIA reports some of the impacts are cumulative in nature which all of the individual EIA reports fails to account for in a meaningful manner.
>
> These cumulative impacts includes but not limited to the following:
>
> i) Air Quality
>
> The quality of the air from the ALNG site will be cumulatively affected by different activities that may be taking place simultaneously.
>
> Failure to treat with air quality in a cumulative manner could lead to oversights in the impact assessment process. An example of this impact assessment oversight relates to the proponent's failure to address the dust generated from the dried and exposed surface of the proposed reclamation area after development activities are completed.
>
> This is of particular significance given that Section 5.2.1, Air Quality, page 69, Train IV EIA acknowledges that " The sources of dust during construction will be mainly from earthworks activities and exposed surface and the impact may be heightened during long dry spells."
>
> The approach in the EIA reports to deal separately with the impact on air quality during construction and operations of pipeline, jetty and LNG Train IV respectively is not acceptable.
>
> Re-analysis of air quality from a cumulative assessment approach is recommended.

ii) Noise

The noise generated from the overall project will be cumulative in nature because of different activities that may be taking place simultaneously. In assessing the separate EIA reports submitted this cumulative impact was not properly addressed.

ALNG must show how the schedule of major noise generating activities for each infrastructure development would overlap one another. Modeling must be done to determine whether the cumulative noise effects at the period of activity overlap would be tolerable for the affected communities.

iii) Vibrations from pile driving

Section 5.2.7, pages 84 and 85 of the Train IV EIA deal with vibrations from pile driving and its impact on the existing associated infrastructure.

The Jetty EIA fails to address the vibration issue from pile driving. Again, just as with noise there will be a cumulative vibration impact construction phase of the required infrastructures. ALNG must address this concern.

Also of noteworthy interest is the conclusion in the last paragraph of Section 5.2.7.1, Ground Vibrations, page 85 of Train IV EIA, which states

> "Vibrations from pile driving, as a result of strict monitoring inside the fence, is not expected to affect buildings outside the site perimeter" ALNG must provide supporting historical evidence or studies to substantiate this claim.

Ideally, ALNG should do surveys of homes around the area before and after pile driving, as this will contribute towards resolving the validity of any claims for damages.

iv) Marine Traffic through the Serpent’s Mouth

No analysis was done for increased LNG marine traffic through the Serpent's Mouth.

The EIA reports and Marine Traffic Analysis deals specifically tanker movement in the channel and turning basin. ALNG fail to recognize that impacts of their shipping activities is not only limited to their channel and basin but is also linked to the route of the LNG tankers which passes through the Serpent's Mouth where most of the marine traffic from the Gulf of Paria converge.

Given the ongoing expansion of industrial activities at the Pt. Lisas Industrial Estate, growth of offshore hydrocarbon servicing operations from Chaguaramas, increasing cruise ship visits and heightened port activities to satisfy to economic growth, an increase in shipping activities through the Serpent's Mouth is expected.

An increase in LNG tanker activities as a result of ALNG Train IV expansion, would also further contribute toward more maritime traffic through the Serpent's Mouth. Apart from the increasing concern over possibility of a maritime collision, the competition for access to the deep draft route as per Admiralty Chart 483 and perceived economic impact on other marine operators is also concern that must be addressed.

This impact represents a cumulative impact which ALNG must address.

v) Socio-economic impact on the local construction industry

The construction of a new LNG train and storage facility, cross-country pipeline, jetty and reclamation area will require a substantial amount of construction equipment, much of which will have to come from the local construction industry.

It is foreseen that with the heightened demand for construction equipment, the situation could arise where access by the local construction industry to these equipment becomes scarce, ultimately leading to an increase in rental rates. This would set the general public to a disadvantage.

> This issue was raised and acknowledged during the consultation meeting with the ALNG 56" pipeline cross-country development team. ALNG must do a study of the potential impact on the Local Construction Industry and identify ways to mitigate against this."

This letter is comprehensive. It opines on a wide range of matters apart from cumulative impact, and expresses dissatisfaction with a number of aspects of the EIA.

Third, a letter of April 29, 2003 from the Ministry of Energy and Energy Industries to the EMA recommended certain terms and conditions for inclusion in the CEC for ALNG Train 4 project. Included was a condition that cumulative impacts for noise, vibrations, water and air quality be assessed via continuously monitoring during construction and operation. Any non-compliance matters that may arise should be reported promptly to the EMA, MEEI and respective Regulatory Authorities.

Fourth, a letter of May 1st 2003 from Rapid Environmental Assessments (2003) Limited to the EMA. This commented on the draft CEC and, among other things, said that "We feel obliged to state that we do not consider it good practice to attempt to address deficiencies in the EIA's through the use of specially tailored conditions, especially when the information needed to address those deficiencies might have a bearing on the overall acceptability of the project. We also feel that insufficient account is being taken (in both the EIA documentation and in the wording of the draft CECs) of the existing, and soon to be constructed LNG facilities (Trains 1,2 and 3). Train 4 should be regarded as an expansion of the earlier trains and not simply as a project in its own right. The cumulative impacts of all 4 trains should therefore be addressed in the permitting process."

Fifth, a letter of May 8th, 2003 from ALNG to the EMA, responding to the Ministry of Energy and Energy Industries suggestions as to terms and conditions for inclusion in the CEC. Among other comments, it said that the EIA submitted proposes to assess cumulative impacts for noise, water and air quality on a quarterly basis and that it is neither nor feasible to implement "continuous" measurement of the emissions indicated above as the Ministry had suggested. It went on to propose that all non-compliance matters be reported to the appropriate agencies.

I agree with the submissions that the EIA and subsequent correspondence dealt with the issue of cumulative impact, among others. It is also clear that the EMA did not merely accept what was put forward by ALNG. It examined, either itself or through its experts, the information considered to be necessary, and came to its decision.

Rule 10(e) of the CEC Rules requires the EMA to consider the cumulative effects but does not provide any specific guidelines or parameters for cumulative impact assessment. The EMA is given a broad discretion to determine the scope and sufficiency of the assessment but is not provided with any guidance on how this discretion is to be exercised. The term "cumulative effect" is not specifically defined, but its importance is well recognised as being one of the more important considerations in carrying out an environmental assessment.

The Act and the National Environmental Policy aim at achieving sustainable development and the EMA must consider development projects in a cumulative context. It must be given careful scrutiny because natural resources are seen as being under increasing pressure.

The Act, however, provides very little guidance on this issue, and it is worthwhile looking at the principles established in other jurisdictions with

more developed environmental jurisprudence. e.g. Canada and the United States of America. I appreciate Mr. Martineau's concerns about different legislative regimes (I have set out my views on this when dealing with the precautionary principle), but I do not think our legislative framework to be so different as to do away with all comparison. There is one common element, which is that there is a broad discretion to consider cumulative impacts without any specific guidelines for the exercise of the discretion.

The most comprehensive definition of cumulative effect is that formulated by the U.S. Council on Environmental Quality (CEQ), created by the U.S. National Environmental Policy Act 1970:

> "…the impact on the environment which results from the incremental impact of the action [being analysed] when added to other past, present and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions."

An analysis of the major Canadian and American authorities reveals that the court's role in judicial review of environmental assessment is clearly circumscribed. The scope of judicial review of the agency's discretion is narrow because of policy concerns which militate in favour of a more deferential approach, as recognised in *Iverhuron & District Ratepayers Ass'n v. Canada (Minister of the Environment): (2001) 272 NR 62 para 53*

> "The extent to which certain factors are considered, and the weight given to the various factors on the overall assessment of environmental effects, are matters for those who have expertise to make such judgments, and not for the court."

The court limits itself to mainly procedural review seeking to ensure that the statutory requirements have been complied with and the legislative purpose is

achieved. Courts only intervene to overturn the agency's findings if they are arbitrary and capricious.

It is clear from these decisions that the court's function in judicial review proceedings is not to act as an "academy of science" (see Steyn J. in *Vancouver Island Peace Society v. Canada* [1992] 3 F.C. 42, 51) or a "legislative upper chamber". To turn the reviewing court into an "academy of science" would be both inefficient and contrary to the scheme of the Act (see Sexton J.A. in *Iverhuron).* As long as the agency complies with the statutory process, the Court must defer to their substantive determinations, but this deference is not absolute. The Court of Appeal in *Iverhuron* made it clear that the Court's approach should not "be so deferential as to exclude all inquiry into the substantive adequacy of the environmental assessment. To adopt this approach would risk turning the right to judicial review of the decision into a hollow one."

Neighbors of Cuddy Mountain, Blue Mountains Biodiversity Project v. Blackwood 161 F.3d 1208 (9th Cir. 1998) and *Muckleshoot Indian Tribe v. Forest Service* 177 F.3d. 800 (9th cir. 1999) develop an approach to judicial review in which the court's mandate is to verify two things:

> 1. procedural compliance- a demonstrated carrying- out of regulatory detail shows that the mechanics of the regulation have been followed by the agency.
> 2. substantive compliance- a sufficiently detailed regulatory compliance demonstrates fulfilment of the Act's mandate as a whole. Information supplied in response to these regulations succeeds only to the extent that it evidences a carrying out of the statutory goal.

The approach to judicial review of cumulative impact assessment in these cases is referred to as the "hard look doctrine" and originated in the context of

court review of administrative decisions. The approach adopted by these courts does not in substance differ from the approach adopted in this jurisdiction when considering applications for judicial review of an administrative decision.

The "hard look" requires the agency to take its statutory responsibilities seriously and take a "hard look" at all the relevant circumstances. It calls only for the Court "to ensure that the agency took a hard look at the cumulative environmental consequences"(see *NRDC v. Morton* 485 F 2d. 827). Once the agency has taken "a hard look" by complying procedurally and substantively with the legislative intent, the court cannot impose its views or interject into the agency's discretion as to the action to be taken. The court applies this doctrine by scrutinising the record to satisfy itself that the agency has exercised a reasoned discretion with reasons that do not deviate from or ignore the ascertainable legislative intent (see *Greater Boston Television Corporation v. FCC* 444 F2d. 841 (D.C. Cir 1970)). The agency's hard look must be supported by substantial evidence and the court should only set aside the agency's decision if it is not supported by substantial evidence (see *Harold Leventhal, Environmental Decision making and the Role of the Courts).*

The Act and the CEC Rules provide a process for environmental impact assessment which requires the EMA to consider procedurally and substantively the cumulative impacts of the project on the environment. The purpose of this is to ensure that the actions of the EMA are fully informed and well considered. Compliance with the Act is judged by the level of detail the data provides. The EMA's decision-making process must exhibit a transparency so that the decision is seen to depend on specific, detailed information collected in compliance with the Rules.

For the EMA to satisfy this requirement there must be evidence that "quantified and detailed information" was considered. This requirement was

set out in *Neighbors of Cuddy Mountain,* where the Court found that the Forest Service failed to adequately assess the cumulative effects. The language offered by the Forest Service to assess the cumulative effects was extremely vague and the analysis was very general:

> "To "consider" cumulative effects, some quantified or detailed information is required. Without such information, neither the courts nor the public, in reviewing the Forest Service's decisions, can be assured that the Forest Service provided the hard look that it is required to provide…General statements about "possible" effects and "some risk" do not constitute a "hard look" absent a justification regarding why more definitive information could not be provided."

The same point was reiterated in *Blue Mountains Biodiversity Project* where the plaintiffs challenged a post-fire salvage timber sale under NEPA, arguing that the Forest Service's failure to issue an EIS was a violation of that statute. The Court agreed with the plaintiffs, noting that the Forest Service's failure to discuss certain reports suggested a failure to take the hard look required. The Court rejected the Forest Service's use of broad generalities and irrelevant issues. The Court insisted that the Forest Service take a hard look at possible effects rather than offering generalities. The hard look had to be supported by hard data. Only with such data could the conclusions of the assessment be verified, evaluated, and accepted as compliance with NEPA's mandate.

This requirement of specific detail was also emphasised in *Muckleshoot Indian Tribe,* where the Court laid out the test as to whether an environmental impact survey is adequate as being: "whether there is a reasonably thorough discussion of the significant aspects of the probable environmental consequences."

As in *Neighbors of Cuddy Mountain* and *Blue Mountains Biodiversity Project*, the Court focused on the need for details: an environmental impact statement must "catalog relevant past projects"; "it must include a useful analysis of the cumulative impacts of past, present and future projects"; it must discuss future projects, and it must analyse the total effects in sufficient detail to inform the decision maker in deciding whether to alter the project to avoid or lessen these impacts.

In my view, the EMA complied with the assessment procedures set out in the CEC rules. It insisted that a proper EIA was submitted. Not only did the EMA take a hard look at the EIA, but it took a long and detailed one before granting the CEC. As I have said, there were reports from a variety of external sources specifically for the EIA and the process of considering the CEC application. The Ministry of Energy was particularly comprehensive in its comments. This was all quite apart from the EMA's own internal appraisal. The consequence of all this was a long delay about which ALNG expressed concern to Dr. Ken Julien, Executive Chairman, Sub Committee-LNG Expansion. ALNG regarded the abundant caution exercised by the EMA and the independent reviews of the EIA conducted to be "excessive, unnecessary and time-consuming".

This detailed look extended to the cumulative impacts of the project. It is clear from the evidence that additional information and clarification was requested from ALNG on this issue. There is substantial evidence that cumulative impacts were considered. Indeed, the Ministry of Energy opined that the EIA failed to deal with cumulative impacts in any "meaningful manner", and required further detailed data. The additional information requested was very specific and detailed. The EMA subsequently obtained and considered this information.

It therefore cannot be said that the EMA merely rubber-stamped the cumulative impact assessment data contained in the EIA. The EMA sought independent expert assistance in evaluating the CEC application generally and the cumulative impacts in particular, and carried out appropriate analyses. There is detailed information verifying that the EMA's assessment of this issue complied with the Act's mandate of "sustainable development, balancing economic growth with environmentally sound practices in order to enhance the quality of life and meet the needs of present and future generations."

I have therefore come to the conclusion that the cumulative impact was considered. A "hard look" was taken, based on the information then available. That information was sufficient in all the circumstances. There was no good reason to defer the decision to a future date. The decision to issue the CEC was not irrational because of a failure to consider the cumulative impact, or to do so properly.

2. The EMA failed to deal with the health concerns of nearby communities.

I have already concluded that the CEC contains specific provisions relating to e.g. air quality and noise pollution. No issue is taken with the specifications for the stack emission and ambient air standards detailed in the CEC.

Dust levels and other potentially negative impacts on air quality and health during construction are dealt with in the CEC.

Waste generation in a variety of forms, and its disposal during operations after commissioning of Train IV are also dealt with.

Complaints of respiratory ailments were investigated. Reports and advice were received and considered.

I do not accept that the terms of the CEC in this regard are properly to be regarded as irrational.

3. The EMA failed to deal with specific environmental complaints such as light.

I deal elsewhere in this part of the judgment with the issue of light and heat monitoring. It is sufficient to say here that the environmental complaints received were investigated and considered. They were also the subject of specific conditions in the CEC.

The specific issue of light is addressed presently.

I am not satisfied that the evidence discloses a failure to consider these complaints. The CEC is not irrational in this respect.

4. The EMA failed to deal properly with the question of a proper emergency procedure applicable to nearby communities.

I have already concluded that the CEC deals with this aspect. In my view the evidence does not show that the decision made and the conditions included in the CEC can be regarded properly as irrational.

5. The EMA introduced the notion of a buffer zone but ignored the specific health and environmental complaints of the residents.

This ground is in reality a part of the ground which I deal with next. All I need say here is that the evidence shows that the health concerns and environmental complaints of the residents were considered properly during the decision-making process. The condition relating to the establishment of a buffer zone was not irrational. The concerns were not ignored.

6. The EMA left it up to ALNG to address the mechanisms for establishing a buffer zone.

FFOS contends that the EMA acted unreasonably leaving it up to ALNG to develop mechanisms for the establishment of a buffer zone.

The EMA submits that it received recommendations from several of its independent consultants that a buffer zone should be developed. The EMA took its own decision on the buffer zone issue and ultimately inserted a condition in the CEC requiring ALNG to develop mechanisms to establish the buffer zone itself. This condition is significant, since a breach could involve the statutory provisions being invoked against ALNG.

ALNG submitted that having considered the issue of a buffer zone, the EMA correctly did not include its establishment as a mandatory requirement in the CEC:

> 1. The EMA did not consider it necessary to impose a condition requiring the establishment of a buffer zone because there were stringent measures for air control, noise level control and control of hazardous risks within the limits of the property line of the Train IV Plant.
> 2. In any event the likelihood of any gas related accident occurring in the area and causing injury to anyone was extremely low.

I am unable to say that this condition in the CEC was "so outrageous in its defiance of logic or of accepted moral standards that no sensible person who had applied his mind to the question to be decided could have arrived at it."

The CEC required ALNG to put forward a plan to establish a buffer zone. That plan was to be in accordance with applicable international standards and guidelines, and was to be sent to the EMA prior to commencement of

operations. Obviously, this plan would have to be approved by the EMA and, equally, the international standards and guidelines would have to be met. This plan could not be a mere "puff" of an idea; if it failed to meet these standards and guidelines, then it would be open to the EMA to amend it suitably. It could also take any steps necessary to have any approved plan implemented, or otherwise deal with ALNG as it would deal with any errant developer. It was not ultimately a matter for ALNG to decide. This requirement was not inconsistent with the CEC. The health and environmental complaints of the residents were not ignored.

I do not find this condition to be illegal or irrational.

7. The EMA failed to require relocation of the residents.

I have already concluded that the failure to require the relocation of residents as a specific condition of the CEC was not illegal.

Similarly, I do not accept that such a decision was unreasonable or irrational. It was reasonable to await the establishment of a buffer zone (if required at all) to see whether the need for relocation arose, and to establish where relocation could or could not be effected.

8. The EMA failed to consider properly or all at all whether proper arrangements were in place to cater for accidents or emergencies.

I have already dealt with this issue at some length and concluded that this decision was not illegal.

Similarly, and for the same reasons, I do not accept that the conditions in the CEC were irrational.

9. The CEC was vague, inadequate and contained ambiguous and meaningless terms.

I have already concluded that the terms of the CEC were not as contended so as to make the decision illegal.

Similarly, I do not accept that the terms of the CEC were vague, inadequate, and ambiguous or meaningless, or sufficiently so, as to make the decision irrational.

I come to this conclusion for the same reasons set out earlier.

10. The EMA failed to require independent third parties to monitor air, water and noise, but instead left it up to ALNG.

The EMA had certain historical information of its own as well as information supplied to it by ALNG with respect to these matters. There is nothing to demonstrate that the latter information was unreliable or otherwise unacceptable.

While it may have been preferable for the EMA to conduct the monitoring itself, or to retain an independent third-party to do so, there is nothing to give rise to suspicion as to the accuracy of what ALNG would provide in the future. In the circumstances, I cannot conclude that this decision was irrational.

11. The EMA failed to require light and heat monitoring.

The CEC required monitoring of air quality and noise levels, but not of light and heat. The complaints as to light and heat came from Doon Sajadyar, who said that the former was a consequence of night work while constructing the

facility, as well as from flaring. The latter, she says, is a consequence of flaring.

The matter of flaring is dealt with specifically in the CEC. It is only permitted when there is an unavoidable release of natural gas during emergency conditions. This would usually be after operation of the facility commences. The incidence is therefore unlikely to be more than occasional at worst. There is no evidence to show the frequency of flaring during the operations of Trains I, II and III.

As to light during the course of construction work at night, this is a condition that will come to an end when Train IV begins operations.

In the circumstances, I am not satisfied that any omission to require this monitoring can be regarded as unreasonable or irrational.

In summary, I am not satisfied that the decisions were unreasonable or irrational. I can find nothing in them, individually or collectively, so outrageous, in defiance of logic or accepted moral standards, that no sensible person applying his mind to the question could have arrived at any or all of those decisions; they were not made in an arbitrary fashion so as to label them absurd or perverse.

Procedural impropriety

Procedural impropriety is defined as being not only a denial of natural justice, but also a failure to observe procedural rules expressly laid down by the legislative instrument conferring jurisdiction on an administrative body.

The main (if not the only) ground advanced initially under this head was that FFOS and the residents had a legitimate expectation of a substantive and/or

procedural benefit under the legislation. This benefit constituted considering the complaints and concerns raised; giving FFOS and the residents a further opportunity to make representations with respect to any findings adverse to their position; and considering those representations before deciding to grant the CEC.

This expectation is said also to arise under this county's obligations under the Rio Declaration on Environment and Development (1992).

This ground was not, however, pursued at the trial.

I have already set out my conclusion that the EMA observed the procedural rules imposed on it, both in relation to the requirements of the Act and the CEC rules. I can find no denial of natural justice to FFOS or the residents. They were all afforded the opportunity, on more than one occasion and in more than one way, to put forward their views, comments and recommendations. They had this opportunity in the full knowledge of what was set out in the TOR and the EIA. The evidence is that the EMA gave proper consideration to what FFOS and the residents put forward. That consideration was neither biased, tainted, nor affected in any way by any improper motive.

I am not satisfied that there was procedural impropriety.

Disposition

For the reasons I have set out I am unable to conclude that either the decision or the decision-making process was: illegal, irrational or procedurally improper; an abuse of power; biased; or otherwise liable to be set aside on any of the grounds set out in the motion. The motion is therefore dismissed.

In arriving at this determination I do not wish to be seen as dismissive of the concerns expressed by FFOS and the residents. I accept that there was cause, for their complaints. The concerns as to safety, health and the environment are genuine - they are certainly not shown to be otherwise. My task, however, has been to review the decision of the EMA, and the process by which it was made, and decide whether in all the circumstances its decision was illegal, irrational or procedurally improper. It was not to decide whether it was perfect, or whether the views or wishes of the Applicant, the residents, or anyone else, should prevail.

I will hear Counsel on the issue of costs on a date and at a time convenient to all, if they so wish, including the costs of the applications to strike out certain paragraphs of the affidavits filed in support of the motion. These costs were reserved at the time of delivering my ruling.

22nd October 2004

C.V.H. Stollmeyer
Judge