CAPE COD COMMISSION

3225 MAIN STREET
P.O. BOX 226
BARNSTABLE, MA 02630
(508) 362-3828
FAX (508) 362-3136
E-mail: frontdesk@capecodcommission.org

DATE: February 17, 2005

TO: Shawn Konary
Director, Environmental Affairs
Mirant Canal, LLC
9 Freezer Road
Training Center
Sandwich, MA 02563

FROM: Cape Cod Commission

RE: Modification of Development of Regional Impact Decisions
Dated July 29, 1999 and October 21, 1999
Cape Cod Commission Act, Sections 12 and 13

APPLICANT: Mirant Canal, LLC

PROJECT #: MOD-98033 Major Modification
And as the July 29, 1999 DRI decision was modified by decisions issued by the Commission's Regulatory Committee dated 2/19/02, 6/18/03, 4/13/04 and 10/18/04

And as the October 21, 1999 DRI decision was modified by decisions issued by the Commission's Regulatory Committee dated 12/29/99, 2/14/00, 4/27/00, 6/5/00, 7/10/00, 7/24/00 and 2/19/02

PROJECT: Addition of Aqueous Ammonia to Plant for SCR on Unit #1 at the Canal Station Power Plant

BOOK/PAGE: Book 11961 Page 224 and 226
Certificate of Title Number: 151549

DECISION OF THE CAPE COD COMMISSION

SUMMARY

The Cape Cod Commission (Commission) hereby approves with conditions the application of Mirant Canal, LLC (Mirant) as a Major Modification to the approved Development of Regional Impact (DRI) decisions for the Canal Plant pursuant to Sections 12 and 13 of the Cape Cod Commission Act (Act), c. 716 of the Acts of 1989, as amended, and Section 9(n) of the DRI *Enabling Regulations* (as amended), Barnstable County Ordinance 90-12, for the addition of aqueous ammonia storage, handling and use at the power plant. This decision modifies the Commission's July 29, 1999 and October 21, 1999 DRI decisions and is rendered pursuant to a vote of the Commission on February 17, 2005.

PROJECT DESCRIPTION

The project before the Commission is a modification to the July 29, 1999 and October 21, 1999 Development of Regional Impact (DRI) decisions which would allow the Canal Station power plant

(located off Freezer Road in Sandwich) to accept, handle, use and store aqueous ammonia as part of its existing air pollution control system. The Canal Station plant, which is the subject of this approval, is an existing electric power generating plant in Sandwich, on the Cape Cod Canal, consisting of two generation units with a combined output of 1,120 megawatts (560 MW peak per unit). The plant is able to run using fuel oil (#6) and natural gas. Unit #1 of the plant is equipped with a Selective Catalytic Reduction (SCR) unit, which is part of the facility's overall air pollution control equipment. Currently, the SCR is configured with an Ammonia on Demand (AOD) system which uses ammonia gas produced by hydrolyzing urea pellets. Since a minor modification decision granted by the Commission's Regulatory Committee in June, 2003, the SCR on Unit #1 has been supplied with aqueous ammonia delivered by truck. The modification request which is the subject of this decision is to allow the plant to install two (2) 60,000 gallon above-ground storage tanks to hold aqueous (liquid) ammonia to service the SCR on Unit #1.

PROCEDURAL HISTORY

In DRI decisions with conditions, dated July 29, 1999 and October 21, 1999, the Commission allowed Southern Energy Canal, LLC (then owner of the Canal Station plant), to conduct site work in two phases to install SCR pollution control technology on Units #1 and #2 of the Canal Station plant. The Commission issued three Certificates of Compliance, two dated August 8, 2000 and August 14, 2000 and one dated May 18, 2001, for the phased work described in the 1999 DRI decisions. Beginning in December 1999, the Commission's Regulatory Committee also issued a number of decisions modifying the July and October 1999 DRI decisions.

In an April 12, 2004 modification decision, the Commission's Regulatory Committee granted Mirant permission to use aqueous ammonia on a temporary basis. This modification decision contained a condition that required Mirant to make an application to the Commission for a Major Modification to the original DRI decision(s), for the long-term use of aqueous ammonia if needed, or to provide the Commission with a written statement that the plant was not seeking to use aqueous ammonia on a long-term basis, and an explanation of the reasons for Mirant's decision. The modification decision set a time limit for Mirant to inform the Commission of its decision regarding long-term use of aqueous ammonia.

Attorney Michael Ford, Stinson & Ford, representing Mirant, submitted a letter to the Commission, received on July 12, 2004, asking that it consider Mirant's request for a Major Modification to allow long-term use of aqueous ammonia at the plant. An additional project narrative and site plans were submitted as part of a letter received on August 3, 2004. Another letter was submitted on November 8, 2004. The application was deemed complete on December 2, 2004. A duly noticed Public Hearing pursuant to Section 5 of the Act was held at the Sandwich Town Agencies Building, 16 Jan Sebastian Drive, in Sandwich, on December 20, 2004. Additional project-related information was submitted by Mirant at the hearing on December 20, 2004. Further information was received by the Commission on December 28, 2004 and December 29, 2004. A Subcommittee meeting was held on January 18, 2005. At this meeting, the Subcommittee recommended approval of Mirant's request as a Major Modification with conditions. A final public hearing was held before the full Cape Cod Commission on February 17, 2005. At the close of this hearing, the Commission voted to approve, with conditions, Mirant's Major Modification request.

MATERIALS SUBMITTED FOR THE RECORD

Cape Cod Commission

DRI Tracking Sheet	Undated
Letter, to Attorney Ruch, DEP	11/12/04
E-mail and response, to JoAnne Miller Buntich, hearing room	11/16/04
Memo, to Subcommittee	11/19/04

Cape Cod Commission (continued)

E-mail, to Richard Rothstein, KM CHNG	11/22/04
E-mail, to Renee Kaufman	11/23/04
Fax, from Richard Rothstein, KM CHNG	11/29/04
E-mail, to Attorney Ruch, DEP	11/30/04
Letter, to Attorney Ford, Major Modification application complete	12/2/04
Fax cover sheet, to Attorney Ford	12/2/04
E-mail, to Attorney Ruch, DEP	12/4/04
Memo, to Attorney Ruch, DEP	12/2/04
Fax cover sheet, to Shawn Gonzalves, press	12/8/04
Staff report	12/14/04
Memo, to Subcommittee	12/15/04
Fax cover sheets, to various people, distribution of staff report	12/15/04
Hearing Notice	12/20/04
Hearing Sign-in Sheet	12/20/04
E-mail, to Subcommittee, electronic version of staff report	12/21/04
E-mail, from Carol Tinkham	12/22/04
E-mail, to Carol Tinkham	12/22/04
E-mail, from Carol Tinkham	12/22/04
E-mail, to Subcommittee	12/22/04
E-mail, from John Harris	12/22/04
E-mail, from Richard Rothstein, KM CHNG, budget	1/3/05
Letter, from Richard Rothstein, KM CHNG, budget	1/3/05
Memo, Questions posed in meeting with Attorney Ford & DEP	1/3/05
E-mail, to ERL, Information on quotation	1/11/05
Staff report	1/12/05
E-mail, from ERL, Quotation	1/13/05
ERL, Quotation package by mail	1/13/05
Fax cover sheets, to various people, distribution of staff report	1/13/05
Quotation sheet	1/18/05
Meeting Notice	1/18/05
Minutes, Subcommittee Meeting	1/18/05
Fax cover sheet, to David Mason, Sandwich Health Agent	1/18/05
Fax cover sheet, to Kevin Dennehey	1/18/05
E-mail, to Subcommittee members, draft decision	1/31/05
E-mail, to Subcommittee members, draft decision	1/31/05
Fax cover sheet, to various people, draft decision	2/1/05
E-mail, to Richard Rothstein, copy of draft decision	2/1/05
Memo, to Elizabeth Ellis & Sharon Lowberg, copy of decision	2/1/05
E-mail, to David Mason, Sandwich Health Agent, draft decision	2/1/05
Meeting Notice	2/3/05
Minutes, Subcommittee Meeting	2/3/05
E-mail, to Robert Cannon, USCG, aqueous ammonia transport	2/4/05
Memo, to Subcommittee Chair, copy of draft decision	2/10/05
Memo, to Commission/Subcom., changes in Minutes/Testimony	2/10/05
Memo, to Subcommittee Members, copy of draft decision	2/11/05
Memo, to Commission Members, copy of draft decision	2/11/05
E-mail, to various people, copy of draft decision as PDF	2/11/05
E-mail, to Richard Rothstein, KMCHNG, draft decision	2/11/05
Fax cover sheet, to Attorney Ford, copy of E-mail from USCG	2/14/05
E-mail, to Robert Cannon, USCG, response to his E-mail, ammonia	2/16/05
Notice of Commission Meeting to consider draft decision	2/17/05

Applicant, Applicant's Representatives

Letter, from Attorney Ford, Problems with AOD system	6/10/03
Letter, from Attorney Ford, with small sketch plans	7/12/04
Letter, from Attorney Ford, with narrative from Shaw/Stone & Webster, site plan and Large plan (plan undated)	8/3/04
E-mail, from Cathleen Doherty to Ronald Bevacqua, exterior lighting information	10/12/04
Letter, from Attorney Ford, Regional Policy Plan issues	11/8/04
Computer visualizations of proposed tanks and infrastructure	12/20/04
List of 17 questions and responses and a sheet with a chemical reaction from Attorney Ford	12/20/04
Letter, from Attorney Ford, revised site plans and lighting plans	12/28/04
Letter, from Attorney Ford, narrative and list of questions	12/29/04
Copy, consultant fee payment check	1/27/05
Fax, from John Grenda, Mirant, letter from Chief Klueber, Bourne	2/10/05
Fax, from Attorney Ford, concerning emergency response	2/10/05
Letter, from Attorney Ford, copy of fax of 2/10/05	2/11/05

State, Towns, Public, Others

E-mail, from Renee Kaufman	11/22/04
E-mail, from Attorney Ruch, DEP	11/30/04
E-mail, from Attorney Ruch, DEP	12/1/04
E-mail, from Attorney Ruch, DEP	12/2/04
Letter and document, from DEP, Joint Notice of Settlement and Administrative Consent Order	12/20/04
Letter, from John Winkler, DEP SERO	12/20/04
Copy of comments made a hearing, William Diedering, Sandwich Board of Selectmen	12/20/04
Letter, from Bourne Fire Chief	12/20/04
Letter, from Cheryl A. Dawes	12/20/04
Fax, from Association for the Preservation of Cape Cod (APCC)	12/20/04
Letter, Sharon Lowberg	12/20/04
Letter, M. Elizabeth Ellis	12/20/04
Copy of Comments at hearing	12/20/04
Letter, from APCC	12/21/04
E-mail, from Timothy Bryne, Local 51 Plumbers/Pipefitters Union	12/23/04
E-mail, from Sandwich Fire Chief, 2 letters (12/20/04 & 1/25/05)	1/26/05
Letter, from Bourne Fire Chief	2/7/05
Letter, from Bourne Fire Chief	2/7/05
Letter, from Sandwich Fire Chief	2/7/05
E-mail, from Sandwich Fire Chief (same as 2/7/05 letter)	2/8/05
E-mail, from Robert Cannon, USCG	2/8/05
E-mail, from Glenn Barton, USCG, shipment/aqueous ammonia	2/9/05
E-mail, from JoAnne Miller Buntich, to confirm receipt of draft decision by E-mail	2/11/05
Letter, from Bankruptcy Court, Texas, Chapter 11 disclosure notice	2/11/05
E-mail, from Sandwich Fire Chief, comments on testimony in draft decision	2/15/05
Fax, from David Mason, RS, CHO, Sandwich Health Agent, draft decision	2/15/05
E-mail, from Robert Cannon, USCG, ammonia transport	2/16/05
Letter, from Mark Galkowski, Sandwich Conservation Agent	2/16/05

State, Towns, Public, Others (continued)

Letter, from Laura York, Chair, Conservation	2/16/05
Petition, to Bourne Selectmen, from various people, concerns rail, use barge	Undated
Petition, to Bourne Selectmen, from various people, concerns rail, use barge	Undated

The application and notices of public hearings relative thereto, the Commission's staff reports, exhibits and correspondence, the transcript and minutes of meetings and hearings, and all written submissions received in the course of the Commission's proceedings, including materials submitted with file MOD98033 are incorporated into the record by reference.

JURISDICTION

In accordance with Section 7 (d)(iii) of the Commission's *Administrative Regulations*, and the vote of the Commission's Regulatory Committee on April 12, 2004, the proposed changes to the previously approved DRI project constitute a Major Modification which requires Commission review.

TESTIMONY

Note: See minutes in project file for complete public hearing proceedings and minutes from the Subcommittee meeting(s).

December 20, 2004 Hearing

Ms. Taylor opened the hearing at 7:00 PM.

Attorney Michael Ford (Stinson & Ford), representing Mirant, introduced Mr. Shawn Konary, Director of Environmental Health & Safety of Mirant. Mr. Konary introduced several Mirant representatives at the hearing: Ron Bevacqua (Project Manager), Parker Koopman (Plant Manager), John Grenda (Plant Operations Manager), Kathy Doherty (Stone & Webster), Scott Mathewson (Stone & Webster), Peter Vallberg (Gradient Corporation). Attorney Ford said that the applicant was before the Commission as a result of a 1999 DRI decision issued by the Commission for an SCR on Unit #1 at the plant, a condition of which required Mirant to supply the SCR using an AOD system which used urea pellets to make ammonia gas. Attorney Ford said Mirant has decided that operating the AOD system to run the SCR is commercially infeasible. Attorney Ford then described the proposed Major Modification. Attorney Ford said that Mirant was flexible in terms of delivery of the ammonia to the site – by either truck or rail – leaving the final determination to public safety officials, who had expressed a preference for rail delivery (primary) and truck (secondary backup). He said that the plant has an emergency response plan which has been discussed with public safety officials. Attorney Ford explained that a plan had not been provided to the Commission because federal regulations passed since September 11, 2001 (49 CFR 1520), prohibit the emergency response plan from being made a public document. He said, however, that it can be reviewed by public safety officials.

Mr. Jones asked about the timeframe for completion of the project, and the bankruptcy proceedings.

Mr. Konary said that the Administrative Consent Order issued by the Massachusetts Department of Environmental Protection (DEP) required Mirant to install the proposed tanks by May, 2005, and that the plant was currently waiting for local approvals. According to Mr. Konary, tank fabrication would take about 26 weeks; the installation is expected to begin in approximately June, 2005. Mr. Konary said the Bankruptcy Court still needed to review the Consent Order with DEP, but that Mirant expected it to be approved. Mr. Konary noted that the cost of the project was approximately $2.5 million.

Mr. Cole noted that although Mirant said that the public safety officials preferred rail with truck as backup, the information from Stone & Webster appeared to contradict this. Mr. Cole asked whether truck delivery was to be used as a backup.

Attorney Ford said that both rail and truck delivery of the liquid ammonia were alternatives. He said if the product came by truck, approximately 7,000 gallons per truck would constitute a day's supply; alternately, if the product were delivered by rail, it would be in quantities of approximately 25,000 gallons per delivery. Attorney Ford said that truck delivery would be a contingency for when train delivery was not available.

Ms. Adams, the Commission's Planner on the project, presented the staff report, and noted that the Commission had received correspondence on the project as well as a copy of the Administrative Consent Order entered into by DEP and Mirant. Ms. Adams noted that the project was subject to the 2002 Regional Policy Plan (RPP), and that, to be approved by the Commission, the project must be consistent with local zoning, as well as the Minimum Performance Standards of the RPP. Ms. Adams also noted that pursuant to the Cape Cod Commission Act, the benefits of the project must outweigh its detriments. Ms. Adams noted that the project's conformance with zoning and the need for local permits were unclear. She also said that she and the Commission's air quality consultant had met with DEP staff on December 7, 2004 to discuss the project. She said that Commission staff hoped the hearing and submissions from Attorney Ford would clarify issues discussed at this meeting, and issues raised in the December 14, 2004 staff report. Ms. Adams said that the Commission's staff report asked for clarification concerning use of magnesium oxide and its impact on the SCR, and that other issues needing clarification included the magnitude of the reduction in oxides of nitrogen (NOx) resulting from use of the SCR and how the plant's production of oxides of sulfur and particulates would change as a result of the project. In terms of hazardous materials and wastes, Ms. Adams noted that although the Canal plant site was partly located in an existing Wellhead Protection District, the proposed new tanks for aqueous ammonia would not be located in this area. Ms. Adams added that it was vital to get the public safety officials' input on the plant's emergency response plans. Ms. Adams also addressed the issue of exterior lighting.

Mr. Rothstein of KM CHNG Environmental, said that he had reviewed the sampling and analysis report received from Mirant on December 16, 2004. He said that the studies conducted by Mirant reflected what has been required by the final May, 2001 ambient air quality monitoring program. Mr. Rothstein said that all samples analyzed showed "non detect" for vanadium, and that the level of "non detect" concentration level was two orders of magnitude below the DEP's guidelines for such sampling from a public health perspective. He also noted that the vanadium content of the SCR catalyst had been lowered since the monitoring program was required. Mr. Rothstein said that based on these data, if Mirant wanted to change the program to discontinue vanadium monitoring, he would not object.

Mr. Jones said that the items raised in the staff report should be addressed as part of the project's written record. He noted that this was important, given the long history of the project.

Attorney Ford circulated to the Subcommittee a document with 17 questions raised at the December 7, 2004 meeting with DEP and Commission staff. Attorney Ford said Mirant would respond in writing to other questions raised in the staff report.

Ms. Taylor observed that the vanadium in the SCR had dropped. She questioned how the plant's air emissions of sulfur oxides and particulates would change as a result of the proposed

modification, in particular, whether the plant would have less opacity, given that the conversion of SO_2 to SO_3 would decrease.

Attorney Ford responded that the sulfur oxide and particulate emissions would stay the same. Attorney Ford and Mr. Konary said the new catalyst would decrease SO_2 to SO_3 conversion, thereby decreasing opacity. Attorney Ford noted that the response to question #10 stated that Mirant had modeled a release of ammonia mathematically. Mr. Konary said that the plant had not changed anything with respect to ammonia slip, which would be at a maximum of 2 or less. According to Konary, this would be the primary factor influencing the formation of secondary particulates.

Mr. Rothstein noted that the SCR would be run year-round. He asked if doing so would potentially double the previous amount of particulates formation. Mr. Konary responded that the rate was not going to change.

Mr. Jones also asked about the fuels the plant used. He asked if Unit #1 was powered primarily by #6 oil and if Unit #2 was powered primarily by #2 oil and natural gas. Mr. Koopman said that the plant was fueled by a combination of #6 oil and natural gas.

Mr. Jones asked about the balance of use of the units, in terms of which is used most often to generate power. He also asked if the balance of use of the units would change as a result of the proposed Major Modification and adding aqueous ammonia to the plant. Mr. Konary said that the balance of use of the units will not change. He said that Unit #1 was the primary unit that was dispatched and making power. According to Konary, because Unit #1 is the more efficient unit at the plant, it is used more than Unit #2.

Mr. Harris asked if the containment area around the tanks would be cleared of snow to preserve the containment. Mr. Bevacqua said that the tanks would be equipped with sensors to inform plant staff if there was liquid in the containment area. He said that there would also be sump pumps to remove any water from the containment area. Mr. Koopman said Mirant employees regularly inspect plant equipment during large rain or snow events, and the same would be done for the containment area around the proposed tanks, including shoveling out snow as needed.

Mr. Jones questioned whether there were any other rail deliveries to the plant. Mr. Koopman said no, but noted that ash is trucked off in containers. He further noted, however, that truck delivery was desired as an alternative because sometimes the rail bridge was closed. Mr. Jones also commented that rail delivery of aqueous ammonia to the site would be a new use of the rail head.

Mr. Koopman said that the rail spur had been maintained by Mirant and that two existing spurs would be upgraded as a result of the proposed project. He said Mirant would have Bay Colony Railroad inspect the rails and make repairs, as necessary.

Mr. John Winkler, Permit Chief, Bureau of Waste Prevention, Massachusetts DEP, read his comments into the record. He noted that DEP supports the use of aqueous ammonia on a permanent basis to supply the SCR in order to control NOx emissions from the plant.

Mr. William Diedering, Sandwich Selectman, but speaking for himself and not the Board, supported the change to aqueous ammonia to supply the SCR but expressed concern about the fact that Mirant owed back taxes to the Town. He questioned how Mirant owing back taxes to Sandwich affected the Commission's review process, including a possible approval.

Mr. Tom Keyes, Chair, Sandwich Board of Selectmen, said he did not oppose the change to the plant in terms of cleaning up the air, but recommended that the rail bed be inspected to ensure it could handle the train cars. He added that the Town's policy was not to allow applicants to receive a new local permit until such time as back taxes were paid. Mr. Jones and Mr. Harris requested that the Town provide a copy of this opinion to Commission staff when it was available.

Ms. Linda Zern, Chair, Bourne Selectmen, and a member of Bourne's Local Emergency Planning Committee, expressed concern about the transport of aqueous ammonia through Bourne. She said there had been discussions about transport occurring in the early morning. Ms. Zern was also concerned that the structures could be seen from the other side of the Canal. Ms. Zern suggested that the light poles be limited to 12 or 15 feet in height to reduce visual impacts. Ms. Zern stated that the emergency plan should address the fact that the aqueous ammonia would travel through Bourne and contemplate on-route response scenarios, in addition to those at the rail head on Canal property.

Mr. Dennis Newman, Sandwich Fire Chief, said that he and his Department and representatives of the Bourne Fire Department and Bourne and Sandwich Police Department had met with Mirant on several occasions to discuss aqueous ammonia transport by truck and/or rail. Chief Newman noted that his Department had reviewed Mirant's emergency response plan. He noted that rail is the preferred method of delivery of aqueous ammonia, with truck backup when rail is unavailable. Chief Newman said that Mirant had evaluated scenarios involving a catastrophic release of both tanks or a pipe break, and he felt that the public safety responders could control such a situation until the state HazMats Response Team would arrive. He noted that the public safety responders had looked at the ammonia vapor levels in parts per million, and were comfortable based on the scenarios presented that the levels present would be more of an irritant. Chief Newman said Mirant's plans for ammonia storage are better than the plans for the 4,000 gallons of anhydrous ammonia currently being stored at the freezer at the Marina.

Mr. Joe Gaglia asked about the configuration of the ammonia tanks.

Ms. Valeria Protay recommended that the Town Departments have on hand all the necessary equipment so they would not have to wait for the state HazMats Response Team to address a release. Ms. Protay also asked if the aqueous ammonia could be brought to the site by barge.

Chief Newman said that barging operations had been discussed, but that he was not aware of any barges capable of handling aqueous ammonia. According to Chief Newman, considering the factors of tides, movement on the barge, and wind effects, barge transport seemed to increase the potential for a problem. Based on these factors, Chief Newman said he was opposed to barge transport of the ammonia.

Ms. Taylor asked whether the public safety officials had conducted or been involved in table top or field exercises. Chief Newman said the Sandwich Fire Department had been through several emergency response exercises with the power plant to date.

Mr. Jones asked if Chief Newman had seen Mirant's emergency response plan and, if not, whether he is qualified to see it. Chief Newman said that he has seen Mirant's general emergency response plan, but not plans specifically relating to the aqueous ammonia because such plans had not yet been filed with his Department.

Mr. Harris asked about the proposed delivery times for truck or train delivery. Chief Newman responded that there has been no discussion of train delivery because rail bridge operations are controlled more by the railroad and the Army Corps. He said that he believes there would be less

potential exposure to chemicals from rail deliveries than truck deliveries, based on the number of trips needed to transport the product. Mr. Koopman said that truck deliveries would be restricted to the hours of midnight to 6:00 AM.

Ms. Tinkham said that schedules should be developed for rail deliveries, and asked who would be fixing the rail bed and tracks when needed. Mr. Koopman responded that Mirant was in discussions with Bay Colony Railroads on these issues. Mr. Kevin Halligan, Borden-Remington, said his company was one of the companies looking to supply the aqueous ammonia, and noted that Bay Colony was familiar with scheduling such deliveries. He said that, based on his experience, Bay Colony would regularly inspect its beds, and has a maintenance program for rail tracks. Mr. Halligan added that the Federal Rail Administration also sends out inspectors to inspect the tracks, and sets the speed limits for sections of track.

Mr. Harris asked what Mirant would do if ammonia could not be obtained. He also asked how many trucks or rail cars (in addition to the large stationary storage tanks) would be held on site with aqueous ammonia in them. Mr. Konary said that if the plant were unable to get deliveries and ran out of aqueous ammonia, it would not be able to run the SCR. Mr. Koopman added, however, that the infrastructure had been sized to allow enough storage for transportation interruptions. Mr. Koopman said the rail cars and trucks would be off-loaded upon arrival at the site.

Chief Klueber, Bourne Fire Department, said his comments mirror those of Chief Newman. He said that he had been involved in the meetings to discuss transport to the plant and emergency response plans, and agrees that rail should be the primary method of transporting ammonia to the plant. Chief Klueber said that he had recommended that the hours of the truck transport avoid busy times on the roads, unless it was a delivery of last resort.

Ms. Valeria Protay expressed concern about storage of aqueous ammonia at the plant. She also said that the project did not address air emissions of sulfur and particulates. Ms. Protay said that adding ammonia to the plant was just adding another burden to residents. She noted that the Commission had the power to allow or disallow storage of aqueous ammonia at the plant. She further expressed concern about health issues.

Ms. Elizabeth Ellis commented on the project, and submitted a copy of her comments for the record. Ms. Ellis expressed concern about granting a permit to Mirant. She noted that she is a member of Cape Clean Air. Ms. Ellis said that the best solution would be for the plant to burn gas in Unit #2 and a better grade of oil in Unit #1, but recommended that the Commission support the project as the best compromise. Ms. Ellis also recommended that the Commission require that ammonia be delivered to the plant by barge as the safest method of delivery and that the Commission not approve rail delivery to the plant. At the same time, if rail delivery was approved, she recommended that, to increase security, switching and storage of rail cars occur only on plant property. Ms. Ellis further urged the Commission not to approve truck delivery, but if it did, to limit delivery times to no later than 6:00 AM and require that the trucks exit Route 6 by Exit 2 or Exit 3 in Sandwich; she said this would protect Sagamore Village, a densely populated area. Ms. Ellis noted that Bourne reaps no revenue from the plant, and as such, should not bear the truck transport impacts. Ms. Ellis recommended that the Commission require Mirant to follow federal requirements for handling, transport and storage of 20% aqueous ammonia, which is a higher standard than for 19.5% aqueous ammonia.

Ms. Sharon Lowberg, a nurse, and resident of Town Neck, Sandwich, and a member of Cape Clean Air, read her testimony, and submitted a letter for the record. She noted the SCR would address NOx emissions. She noted that Cape Clean Air had met with Town officials in 1998 and stressed the importance of addressing air emissions through changing fuels at the plant. She expressed

concerns about transport, handling and storage of aqueous ammonia. Ms. Lowberg expressed concern regarding noise from train transport, given the proximity of homes to the track, as well as health and odor concerns. She asked whether the transport would be supervised by a government employees. Ms. Lowberg said she had discussed the issue of fuels at the plant with the Sandwich Fire Chief who, she said, as recently as two weeks ago, had expressed surprise that the plant was not using natural gas. Ms. Lowberg said that the Sandwich Fire Chief had said the plant was primarily using #2 oil and natural gas. Based on this, she expressed a concern that the Sandwich Fire Chief was not as familiar with plant operations as he needed to be should an accident occur.

Mr. Joe Gaglia, Sandwich resident, expressed concern over the non-payment of taxes by the plant. He also said that the plant was saving money by using #6 oil versus gas or #2 oil.

Mr. Tim Bern, United Association of Plumbers & Pipefitters, said written comments would be submitted by his group in the interest of time. He said his union had ongoing Journeymen programs with Mirant, and applauded them for their actions to meet clean air standards.

Mr. Mike Corero, Plumbers & Pipefitters Union, said that people who would work on the proposed project would be highly trained. He noted that union personnel also work on nuclear plants and healthcare facilities. Mr. Corero said that Mirant had good hiring practices.

Dr. Anna Manatis Lornell, President of Cape Clean Air, used a number of charts on foamcore to illustrate her comments. She described the NOx and oxides of sulfur (SOx) issues. Dr. Lornell described the health issues caused by air emissions, including ozone and NOx. Dr. Lornell said operation of the SCR would improve NOx emissions. She said Cape Clean Air was concerned about particulate emissions and ammonia emissions, but suggested that, overall, Cape Clean Air had been convinced that SCR was the only available technology to control NOx. Dr. Lornell said, however, that Cape Clean Air's conclusion was not intended to dismiss or reduce concerns expressed about ammonia transport. Dr. Lornell noted she had reviewed air quality data on file at the Commission provided as a result of the prior approvals, and said that the Administrative Consent Order does start to reduce sulfur oxides emissions through the state's new air regulations. She said that while Cape Clean Air may prefer use of a non-ammonia technology, it has not been used at oil plants. She said Cape Clean Air was also continuing to work to reduce particulates and sulfur dioxides.

Mr. Jones noted that it was gratifying to see Cape Clean Air and Mirant close to being on the same side. He thanked Cape Clean Air for its efforts.

Mr. Rothstein asked what would happen if a pressure safety valve failed, and whether a valve release had been included in the modeled release scenarios. Mr. Rothstein also asked for clarification concerning habitability of the control room if there was a release, in terms of protecting plant staff so that emergency response actions could proceed.

Ms. Kathy Doherty, Stone & Webster, said the tanks were at ambient atmospheric pressure, and that they would be designed for 50 PSI. She said venting any vapors would be far less than what might result from a catastrophic tank failure. Ms. Doherty said the tanks would be equipped with audible alarms and methods to isolate and protect the plant control room personnel from the impacts of a tank release.

Mr. Jones asked that Mirant supply information that barging was not a feasible option.
Mr. Koopman said Mirant had looked at this as part of a prior Commission approval. He said Mirant's investigations had shown that the company would have to custom build a barge for this purpose, and would have to construct a new off-loading facility so as not to tie up the plant's

current berthing station. Mr. Koopman said that other new infrastructure would be needed on site to handle it. He also said that based on discussions with local public safety officials, this option was rejected.

Mr. Cole noted that members of the public had expressed a preference for Mirant to be using natural gas and #2 oil at the plant instead of #6 oil. He suggested that this was an economic issue, in that using a more expensive fuel (#2 oil or gas) would impact the plant's marginal cost of producing power; this would then impact how the plant was dispatched by the Independent System Operator. Mr. Cole said what this came down to was an inability to produce electricity at a lower price to now versus the public's willingness to pay a higher price to get the cleaner energy from burning #2 or natural gas at the plant. He suggested that converting the plant to all natural gas would do more for air quality on Cape Cod than other "green energy" proposals in the region.

Mr. Jones moved to continue the hearing and leave the record open. Mr. Harris seconded the motion. The Subcommittee voted all in favor of the motion.

The Subcommittee discussed dates, times and locations for a follow-up meeting on the project.

Mr. Cole moved that the Subcommittee hold a meeting to discuss the project on January 18, 2005 at 1:15 PM at the Commission's office in Barnstable Village. Mr. Jones seconded the motion. The Subcommittee voted all in favor of the motion.

FINDINGS

The Commission has considered the application of Mirant Canal, LLC for the storage, handling and use of aqueous ammonia at the Canal Station power plant. Based on consideration of such application and upon the information presented at the public hearing(s) and submitted for the record, the Commission makes the following Findings pursuant to Sections 12 and 13 of the Act:

General

General Findings G3 and G4 of the original July 29, 1999 decision remain in effect. General Findings G1 and G2 of the original July 29, 1999 decision are modified as shown:

G1. The applicant's request is the first phase of work to prepare the Canal Station site and Units #1 and #2 for installation of Selective Catalytic Reduction (SCR) pollution control technology. Other phases are anticipated which include but may not be limited to other site work and construction, actual installation of the SCRs and operation of the SCRs. ***Since the Commission's July 29, 1999 decision, an SCR was installed on Unit #1 only. In addition, the Massachusetts Department of Environmental Protection (DEP) and the Applicant entered into an Administrative Consent Order dated December 2, 2004 (ACO) which requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

G2. The redevelopment/addition of a third power generating unit, Unit #3, is before the Cape Cod Commission as a Development of Regional Impact. The rendering of a decision on the applicant's request to prepare the Canal Station site and Units #1 and #2 for installation of Selective Catalytic Reduction (SCR) pollution control technology is separate from the on-going review of Canal Unit #3. Part of this review will include air quality permitting of Unit #3 and methods to address other pollutants besides oxides of nitrogen (NOx). This is also recognized by finding AQ6, below. ***Since the Commission's July 29, 1999 decision, an SCR was installed on Unit #1 only. In addition, the Massachusetts Department of Environmental Protection (DEP) and the Applicant entered into an Administrative Consent Order dated December 2, 2004 (ACO) which requires***

the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.

General Findings G1 – G4 of the original October 21, 1999 decision remain in effect. New General Findings G5 – G10 are added to the October 21, 1999 decision as shown:

G5. As noted in the Commission's Modification decision dated February 19, 2002, the Applicant installed tanks and other equipment at the plant site to handle and store magnesium oxide, a hazardous material. This material is used to control white opacity in the plant's exhaust plumes.

G6. Mirant's Major Modification request was reviewed subject to the 2002 (as revised) Regional Policy Plan.

G7. According to information from Sandwich's Director of Planning & Development, at least the following four permits will be required at the local level for the proposed Major Modification project:

- ***An amendment of the existing Special Permit for the SCR from the Zoning Board of Appeals***
- ***Old King's Highway Certificate of Appropriateness (if warranted)***
- ***A Building Permit (for at least the tank enclosure)***
- ***Fire Department permit(s) for storage of hazardous materials***

With respect to local zoning, the plant is an existing facility in the Industrial District, and power generation is allowed in this district.

G8. As of the date of this Major Modification decision, the Town of Sandwich had not adopted a Local Comprehensive Plan which has been certified by the Cape Cod Commission.

G9. This Major Modification decision does not extend, increase or otherwise change the duration of the original July 29, 1999 or October 21, 1999 Development of Regional Impact decisions or any timelines described in subsequent modification decisions.

G10. The Applicant and the Massachusetts Department of Environmental Protection (DEP) entered into an Administrative Consent Order (ACO), dated December 2, 2004, submitted to the Commission on December 20, 2004 (cover letter from Susan P. Ruch, Attorney, dated December 20, 2004, Docket No. 2002-119, File No. W02508, ACO-BO-04-Z012-SETT) relating to air quality issues, and installation of the proposed aqueous ammonia system.

Hazardous Materials/Wastes

Hazardous Materials/Waste Findings HAZ2 – HAZ5 of the original July 29, 1999 decision remain in effect. Hazardous Materials/Waste Finding HAZ1 of the original July 29, 1999 decision is modified as shown:

HAZ1. The applicant proposes to utilize SCRs on Units #1 and #2 as a way of controlling emissions of oxides of nitrogen (NOx). SCRs are the only current technology available to control NOx on utility boilers of this type and size and they utilize ammonia gas as an input. The applicant originally proposed to use 240,000 gallons of liquid ammonia, stored on site in two 120,000 tanks. These tanks would have been located near the proposed Unit #3, very close to the SCR for Unit #2. These tanks would have been 28 feet tall and 28 feet in diameter. The SCR units,

according to the DEIR/DRI application, will be 139 feet tall, 19 feet wide and 139 feet long next to each Unit. In a letter from Attorney Ford, dated July 8, 1999, the applicant commits instead to use of an "ammonia on demand" (AOD) system to replace the aqueous ammonia. The AOD system will utilize urea pellets instead of ammonia: it will generate ammonia gas through a chemical process. ***Subsequent to the application to install an SCR on Units #1 and #2, an SCR was installed on Unit #1 only, and the AOD system experienced repeated technical difficulties such that it never achieved full operation and the Applicant determined that it was not feasible to continue to use it to supply ammonia gas to the SCR. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

Hazardous Materials/Waste Findings HAZ2 and HAZ3 of the original October 21, 1999 decision remain in effect. Hazardous Materials/Waste Finding HAZ1 of the original October 21, 1999 decision is modified as shown:

HAZ1. The applicant proposes to utilize an SCR on Unit #1 as a way of controlling emissions of oxides of nitrogen (NOx). SCRs are the only current technology available to control NOx on utility boilers of this type and size. They utilize ammonia gas as an input. As a result of a Development of Regional Impact Decision rendered on July 29, 1999, the applicant is now committed to use an "ammonia on demand" (AOD) system for the SCR instead of aqueous ammonia as originally proposed. The AOD system will utilize urea pellets instead of ammonia: it will generate ammonia gas through a chemical process. ***Subsequent to the application to install an SCR on Units #1 and #2, an SCR was installed on Unit #1 only, and the AOD system experienced repeated technical difficulties such that it never achieved full operation and the Applicant determined that it was not feasible to continue to use it to supply ammonia gas to the SCR. In addition the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2. Use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

Hazardous Materials/Waste Finding HAZ4 of the original October 21, 1999 decision is modified as shown:

HAZ4. According to Attorney Ford's October 5, 1999 Memorandum, the SCR catalyst uses vanadium pentoxide, titanium dioxide, tungsten trioxide, ceramic fiber and silicon dioxide. In its unused form, the catalyst must be handled as a hazardous material. According to Material Safety Data Sheets, the primary hazards are irritation to skin and mucus membranes. Long term exposure to vanadium pentoxide dust/fumes causes lung and central nervous system damage. The ceramic fibers have been classified as an animal carcinogen. In its spent (used) form, it is a hazardous waste if disposed of, but if recycled, vanadium pentoxide is considered a hazardous material. Vanadium pentoxide is regulated by the Massachusetts Hazardous Waste Regulations, 310 CMR 30.00, as an acutely hazardous waste - P120. Its Chemical Abstracts Number is 1314-62-1. It is also regulated as vanadium oxide. 310 CMR 30.00 allows Large Quantity Generators (LQGs) to generate in excess of one kilogram of acutely hazardous waste per month. Based on information reviewed as part of the previous DRI on Phase One, the Canal Station is both an LQG of MA-regulated hazardous wastes and a Small Quantity Generator (SQG) of all other hazardous waste generated at the plant. As such, Canal Station is not prohibited by state or federal law from generating vanadium pentoxide from spent SCR catalysts. ***Subsequent to the application for the Phase Two of installation of an SCR on Unit #1, the plant changed to an SCR catalyst with a lower vanadium content.***

New Hazardous Materials/Waste Findings HAZ5 - HAZ13 are hereby added to the October 21, 1999 decision as shown:

HAZ5. Pursuant to a modification decision dated February 19, 2002, the Applicant installed tanks and other equipment at the plant site to handle and store magnesium oxide (MgO), a hazardous material, to control the white opacity of the plant's exhaust plumes. The MgO injection equipment consists of a silo (to hold the dry compound), screw feeder and blower. The silo, screw feeder, blower and truck unloading line together is approximately 42 feet high and 11 feet in diameter. The silo holds approximately 15 tons. The MgO is delivered to the plant by truck. The MgO silo was installed close to Unit #1, between the existing electrostatic precipitators and Unit #1 boiler building, outside of the area of the Canal Station plant site mapped as a Wellhead Protection Area/Zone II area.

HAZ6. The Applicant proposes to use 19.5% aqueous ammonia to supply the existing Selective Catalytic Reduction (SCR) equipment on Unit #1 to improve the plant's ability to control emissions of oxides of nitrogen (NOx). As described in an attachment to an August 3, 2004 letter from Stinson & Ford, the proposed project involves the construction and use of two (2) 60,000 gallon above-ground storage tanks to be located in a containment pit. Other related infrastructure will include pumps, skid-mounted piping, a truck unloading station, a rail-car unloading station, an ammonia detection system, other related safety equipment, and exterior lighting. (Narrative from Shaw/Stone & Webster, Inc., Plan entitled "Canal Plant, Site Plan, With Unit 1 Aqueous Ammonia Tanks, undated). According to a letter and revised site plan from Stinson & Ford received on December 28, 2004, the tanks will be different than those shown on the above-referenced plan. The revised site plan indicates that the tanks will be 11 feet high (plus 3 feet of a catwalk) by 77 feet long. (Shaw/Stone & Webster, Inc., Plan entitled "Canal Plant, Site Plan, With Unit 1 Aqueous Ammonia Tanks, Rev. A," undated). According to comments made by Canal plant staff at the December 20, 2004 hearing, the storage tanks would be equipped with sensors to inform plant staff that there was liquid – rain water or melted snow - in the containment area. The containment area would also be equipped with sump pumps to remove water. Plant staff also stated that employees regularly inspect plant equipment during large rain or snow events, and that the employees would manually remove accumulated snow in the containment area around the proposed tanks as needed.

HAZ7. The Canal plant underwent Commission review in 1998-1999. The Regional Policy Plan in effect at the time of the 1998-1998 DRI review, as well as the 2002 (revised) RPP, under which the current Major Modification request was reviewed, contains a Minimum Performance Standard (MPS) which limits the amount of hazardous material and waste that may be used, generated, treated, stored or disposed of in Wellhead Protection Areas. Part of the plant site, specifically its existing fuel farm, is located in a Wellhead Protection Area as mapped by the Commission for the previous and current RPP. However, the specific project activities connected to the Major Modification request are confined to a part of the site that is outside of the Wellhead Protection Area. Based on past Commission DRI decisions, this aspect of the Major Modification is consistent with MPS 4.3.1.3 of the 2002 (revised) RPP.

HAZ8. MPS 4.3.1.1 requires DRIs to make reasonable efforts to minimize hazardous materials use and/or hazardous waste generation, and to submit a plan demonstrating how this will be done. In 1998, the Applicant planned to switch to a resin-based demineralizer unit at the plant to reduce its usage of caustic (sodium hydroxide) and acid. According to comments made by Canal plant staff at a January 18, 2005 Subcommittee meeting, the Applicant, on an on-going basis, tries various products to reduce the plant's use of hazardous materials or its generation of hazardous waste, but has not implemented any specific activity since 1998.

HAZ9. MPS 4.3.1.3 requires that DRIs shall be in compliance with Massachusetts Hazardous Waste Regulations, and to submit a plan demonstrating such compliance. Based on information drawn from the 1999 Commission review, and current records on file with the DEP, the plant is a Large Quantity Generator (LQG) of state-regulated hazardous waste and a Small Quantity Generator (SQG) of all other hazardous waste generated at the plant. As an LQG and an SQG, the Canal Station plant is known as having "dual hazardous waste generator status." This dual status is permitted under the Massachusetts Hazardous Waste Regulations.. The hazardous wastes generated by the plant in 2004 included paint-related wastes, sandblasting media, solvents, antifreeze, and used oil. According to DEP records, as of January, 2005 the plant had two hazardous waste recycling permits. According to a letter received on December 29, 2004 from Attorney Ford, the plant continues to recycle its used oil in house, but no longer accepts used oil from other generators for recycling.

HAZ10. MPS 4.3.1.4 states that development and redevelopment shall prepare an emergency response plan that identifies potential threats to employee safety and health and threats of environmental releases and describes ways to reduce those threats. According to comments made at the December 20, 2004 hearing, and a letter from Stinson & Ford received on December 29, 2004, the Canal plant is subject to the Homeland Security Act and its corresponding federal regulation such that "federal law prevents the disclosure of this sensitive information to anyone without specific need and clearance." Comments from Bourne and Sandwich public safety officials indicate that they have the requisite authorization, and have reviewed and commented on the plant's emergency response plans.

HAZ11. According to the Shaw/Stone & Webster narrative attached to the August 3, 2004 letter from Stinson & Ford, the Applicant proposes to transport aqueous ammonia to the Canal plant by either rail car or truck, with a preferred principal delivery method as recommended by the Cape Cod Commission. However, the Applicant also desires that an alternative method be available as a continuous back-up. Each rail car would be capable of holding approximately 25,000 gallons of aqueous ammonia, while each truck would be capable of holding approximately 7,000 gallons.

HAZ12. Comments made by Canal plant staff at the December 20, 2004 hearing indicate that the Applicant has maintained the rail spur on plant property. Comments also indicated that both the Canal plant's rail spur and the rail bed beyond plant property (controlled by Bay Colony) would be inspected and repaired as needed.

HAZ13. Based on information submitted for the record, and comments made at the December 20, 2004 hearing, the public safety officials in Bourne and Sandwich articulated a preference for rail as the primary delivery method of aqueous ammonia to the plant, with truck backup when rail is not available. The public safety officials also articulated a preference for truck delivery to the plant site no later than 6:00 AM unless there were circumstances which made this impossible.

Air Quality

Air Quality Findings AQ1, AQ2, AQ3, AQ4, AQ5 and AQ6 of the original July 29, 1999 decision are hereby modified as shown below:

AQ1. The Phase One work to prepare Canal Station Units #1 and #2 for installation of Selective Catalytic Reduction (SCR) pollution control technology has already received approval by the Massachusetts DEP subject only to verification of technical information/operational parameters such as ammonia slip. SCRs can run using natural gas. ***Since the Commission's July 29, 1999 decision, an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to***

submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.

AQ2. SCR technology is used to only control oxides of nitrogen (NOx). It does not control other air pollutants such as oxides of sulfur (SOx) or particulates. The SCR units will also result in ammonia emissions and additional emissions of particulates. By comparison, installation of SCRs on Units #1 and #2 is estimated to reduce NOx emissions by 2,437 tons during the ozone/NOx season (May - September). SCRs will result in 16.9 additional tons of ammonia and up to 65.6 added tons of particulates. ***Since the Commission's July 29, 1999 decision, an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

AQ3. There are no Federal ambient air quality standards for ammonia. The Massachusetts DEP has established a 24-hour average Threshold Effects Exposure Limit and an annual average Allowable Ambient Limit. These values are the exposure limits recommended to protect public health for over 100 pollutants, including ammonia. The estimated ammonia emissions from Units #1 and #2 are 16 pounds per hour. Based on ambient air quality modeling provided to the Commission's consultant, Dr. Knapp of Summit Environmental, the maximum 24-hour ammonia concentration calculated was one-tenth of one percent of the standard established by the DEP. This ambient concentration is well below the DEP guideline established to protect public health and is below the ammonia odor threshold. ***Since the Commission's July 29, 1999 decision, an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2. The Major Modification request from the Applicant will allow Unit #1 to operate year-round, so annual ammonia (slip) emissions may increase from the previous estimated value. At the same time, however, lower annual plant ammonia emissions could also result since Unit #2 does not have an SCR. The Applicant stated in a Subcommittee meeting that both Units #1 and #2 would not normally be run at the same time. Even with year-round operations of Unit #1, the resulting ambient ammonia concentration will still be well below the DEP guideline discussed above.***

AQ4. Massachusetts is classified as a non-attainment area for ozone under the National Ambient Air Quality Standards. As a result of this, the Massachusetts DEP has implemented a NOx reduction and cap program which has set a NOx budget on the Canal Station. Southern Energy Canal, LLC has three possible options to meet these requirements for Units #1 and #2: 1.) purchase NOx credits, 2.) restrict fuel burned (use the Units less) or 3.) install SCRs. Comments received from the DEP indicate that permission has been given to Southern Energy Canal, LLC to install SCRs on Units #1 and #2. The SCRs will be used to reduce NOx emissions under the NOx budget program. ***Since the Commission's July 29, 1999 decision, an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

AQ5. NOx allowances for Unit #3 will be generated by the operation of SCRs on Units #1 and/or #2. With SCRs installed on Units #1 and #2, or with acquisition of the necessary NOx credits, Southern Energy Canal, LLC might increase the amount of No. 6 oil fired in Units #1 and #2 which would increase other pollutants. Unit #1 is fueled by No. 6 oil. Unit #2 has the ability to burn No.

6 oil as well as natural gas to a 60% load. According to the DEIR/DRI application, Unit #3 will be fired primarily with natural gas using a limited amount of No. 2 oil as a backup fuel for 30 days in any one year. ***Since the Commission's July 29, 1999 decision, the application of a third power generating unit (Unit #3) was withdrawn, and an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

AQ6. In a letter dated February 8, 1999 to Secretary Durand of EOEA and the MEPA Unit, the Commission recommended "that the FEIR should include an analysis of converting the entire plant, Units #1, #2, and #3, to natural gas as a way of addressing the air quality issues. The analysis in the FEIR of converting the plant to burn natural gas should address project impacts, including those which affect all the topic areas discussed in the Subcommittee Report." Comments from the DEP indicate that Unit #3 will be subject to a new source non-attainment permit application. Comments from the EPA indicate that Unit #3 may be subject to two Clean Air Act permitting programs: 1.) PSD permit program which requires the source to install Best Available Control Technology (BACT) for those pollutants for which the area is in attainment and 2.) nonattainment new source review (NSR) program which requires the source to install Lowest Achievable Emission Rate (LAER) and emission offsets for those pollutants for which the area is in nonattainment. (emphasis in original). ***Since the Commission's July 29, 1999 decision, the application to develop a third power generating unit (Unit #3) was withdrawn, and an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

Air Quality Finding AQ7 of the original July 29, 1999 decision remains in effect.

Air Quality Finding AQ1 – AQ6 of the original October 21, 1999 decision remain in effect. New Air Quality Findings AQ7 – AQ14 are hereby added to the October 21, 1999 decision as shown:

AQ7. MPS 2.6.1.1 states that DRIs "shall be in compliance with the Massachusetts State Implementation Plan…and [the Department of Environmental Protection's] Air Pollution Control Regulations, 310 CMR 7.00." A December 20, 2004 comment letter from the DEP, Southeast Regional Office states that "nitrogen oxide emissions are a precursor to the formation of ozone, and… Massachusetts is in non-attainment of Massachusetts and National Ambient Air Quality Standards for ozone." This letter also states that the DEP "believes it is in the interest of the public to improve the reliability of the SCR air pollution control equipment [on Unit #1] to allow for further nitrogen oxide emission reductions." According to the DEP's letter, the "use of aqueous ammonia will improve the overall reliability of the SCR air pollution control equipment [on Unit #1] and allow for further reductions in nitrogen oxide emissions to the ambient air."

AQ8. The attachment to a December 28, 2004 letter from Stinson & Ford states that the SCR on Unit #1 will be run year-round and that year-round operation of the SCR (response to question #13) will result in an additional 46% reduction of NOx from the entire Canal plant, and will achieve an 80-85% reduction in NOx emissions for Unit #1.

AQ9. The Canal plant emits and will continue to emit oxides of sulfur (SOx) as a result of normal operations with or without the SCR on Unit #1, and with or without this SCR being supplied by aqueous ammonia. Using data from the January 2000 Final Environmental Impact Report, Unit #1 emitted approximately 18,411 tons/year (1997-1998 data) of SOx

without an SCR in operation. The Administrative Consent Order (ACO) caps the plant's average sulfur dioxide (SO_2) emissions rate. Sulfur dioxide is a component of the plant's overall emissions of oxides of sulfur (SOx). Limiting the plant's emissions of SO_2 will reduce but not eliminate its overall emissions of SO_3. The ACO also obligates the plant to follow an even more restrictive SO_2 emissions rate as of October 1, 2006.

AQ10. The amount of SO_3 the plant produces is influenced by the SCR catalyst and its interaction with ammonia gas. Comments at the Commission's December 20, 2004 hearing indicate the catalyst was changed and that this change will help control SO_3 formation. Another consideration in terms of SOx/SO_2 emissions is that plant representatives have committed to investigating use of ultra-low sulfur fuels.

AQ11. As noted in finding HAZ4, the vanadium content of the SCR catalyst has been changed. Comments provided at the Commission's December 20, 2004 hearing indicate that the conversion of sulfur dioxide to sulfur trioxide would decrease because of a new catalyst design. This means that the amount of particulates in the plant's exhaust potentially attributable to sulfur oxides may decrease. At the same time, the amount of ammonia gas the SCR does not use (ammonia slip) influences particulate emissions. Ammonia can react with SOx and NOx in the exhaust gases and can form secondary particulates. Comments at the Commission's December 20, 2004 hearing indicate that the rate at which particulates were formed would not change if the SCR were run year-round. It is also possible that particulate emissions may decrease if the plant uses fuel with a lower sulfur content, or as the ACO requirements that reduce SOx/SO_2 are implemented.

AQ12. In terms of ammonia emissions, use of the urea pellet Ammonia on Demand (AOD) system (which never achieved full operation) would have increased the plant's ammonia emissions. Use of the proposed aqueous ammonia system will also increase the plant's ammonia emissions, but the Commission's review did not determine if the aqueous ammonia system will have more, less or the same ammonia emissions than the previously approved urea pellet system. The ACO between the Applicant and the DEP obligates the plant to "make reasonable efforts" to control emissions of unused/unreacted ammonia (ammonia slip) from the SCR to 2 parts per million (ppm), and holds them to a not-to-exceed value of 5 ppm ammonia.

AQ13. The Applicant performed the modeling as required by the October 21, 1999 DRI decision (as modified), and submitted an air quality monitoring plan which was reviewed by Commission staff, with the assistance of an air quality consultant, and approved by the Commission in May 2001. On December 16, 2004, Commission staff received the Applicant's analysis for vanadium (as required by the agreed-to air quality monitoring plan) which shows "non-detect" of vanadium.

AQ14. The ACO requires the Applicant to submit an application to the DEP for adding Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2. SNCR technology also uses ammonia, but it is not clear from the Commission's review of the Major Modification request whether this would be in the form of a urea slurry or aqueous ammonia.

Transportation

Transportation Findings T2 – T5 of the original July 29, 1999 decision remain in effect. Transportation Finding T1 of the original July 29, 1999 decision is modified as shown:

T1. Southern Energy Canal, LLC proposes to begin work to prepare Canal Station Units #1 and #2 for installation of Selective Catalytic Reduction (SCR) pollution control technology. The work will

consist of installation of bypass and duct, foundation construction and Unit #2 induced fan building at the existing Canal Station on Freezer Road in Sandwich. The motor vehicle access for the facility will be by way of Freezer Road which is classified as a local road on the Federal-Aid Highway Systems Functional Classification Maps. ***Since the Commission's July 29, 1999 decision, an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

Transportation Findings T3 – T7 of the original October 21, 1999 decision remain in effect. Transportation Finding T1 of the original October 21, 1999 decision is modified as shown:

T1. Southern Energy Canal, LLC proposes to complete work to prepare Canal Station Units #1 for installation of Selective Catalytic Reduction (SCR) pollution control technology. The work will consist of erection of a steel external frame structure to support the SCR, installation of ductwork, insulation and siding of the SCR, tying the SCR's ductwork into Unit #1, loading catalyst into the SCR, testing the SCR, construction of the ammonia on demand (AOD) system, and operation of the SCR and AOD system at the existing Canal Station on Freezer Road in Sandwich. The motor vehicle access for the facility will be by way of Freezer Road which is classified as a local road on the Federal-Aid Highway Systems Functional Classification Maps. According to a letter dated October 6, 1999 from the Army Corps of Engineers, Freezer Road is owned and maintained by them. ***Ultimately, the AOD system described in this finding experienced repeated technical difficulties such that it never achieved full operation, and the Applicant determined that it was not feasible to continue to use it to supply ammonia gas to the SCR.***

Transportation Finding T2 of the original October 21, 1999 decision is modified as shown:

T2. The trip generation for this project assumes that the operation of the pollution control devices (SCR's) will not require any new employees at the existing power plant and thus no new vehicles trips will be added to the roadway network. The zero net increase in vehicle trips is below the threshold of 25 vehicle trips requiring analysis and mitigation under Minimum Performance Standards (MPS) 4.1.1.1 of the RPP. ***Ultimately, an SCR was installed on Unit #1 only. In addition, the ACO requires the Applicant to submit an application to DEP for the addition of Selective Non-catalytic Reduction (SNCR) air pollution technology on Unit #2; use of SNCR technology makes it unlikely but does not preclude that an SCR would also be added to Unit #2.***

Water Resources

Water Resources Finding WR1 of the original October 21, 1999 decision is modified as shown:

WR1. The use of dry urea to supply the AOD system requires make-up water. According to an October 5, 1999 Memorandum from Attorney Ford, Unit #1 currently uses 189 gallons per minute (gpm) of water on average for the year. The AOD system will require an initial fill of 500 gallons of water and a 5 gpm make-up stream for the 5-month ozone season when it is operational. This is a 1.1% increase in Unit #1's annual water consumption. It is a one-half of one percent increase in consumption for the entire plant over current operation. The additional make-up water for Unit #1 is proposed to be supplied using existing on-site wells. ***Ultimately, the AOD system experienced repeated technical difficulties such that it never achieved full operation, and the Applicant determined that it was not feasible to continue to use it to supply ammonia gas to the SCR.***

Community Character
Community Character Findings CC1 and CC2 of the original October 21, 1999 decision remain in effect. New Community Character Finding CC3 is hereby added to the October 21, 1999 decision as shown:

CC3. MPS 6.2.10 of the 2002 (revised) Regional Policy Plan requires that exterior lighting for DRIs shall comply with standards including design, light source, total light cutoff, and foot-candle levels defined in Technical Bulletin 95-001. The Applicant has proposed to install two (2) exterior fixtures on 20 foot poles (base + pole + fixture head) to illuminate the proposed aqueous ammonia storage tanks and related equipment. This is shown on a preliminary lighting plan provided as part of a letter dated December 23, 2004. The light selected uses a square housing, and a metal halide lamp with a 90 degree light cutoff. This conforms to Technical Bulletin 95-001 standards 2.1, 2.2, 2.3 and 2.5. The Applicant proposed to use a 400 watt lamp. A December 28th letter from Attorney Ford states that the 400 watt lamp was selected to provide "safe and adequate lighting for the facility." Based on the information submitted, the Commission was not able to determine what was meant by a "safe and adequate lighting" level, or if the proposed design, including a 400 watt lamp, was consistent with Technical Bulletin standard 2.6 that sets a maximum foot-candle level of 8.0. At the same time, the Applicant proposed to use a 250 watt lamp instead of the 400 watt one, if needed, to comply with MPS 6.2.10.

CONCLUSION

Based on the Findings above, the Cape Cod Commission hereby concludes:

1. The benefits of the proposed Major Modification outweigh the detriments. This conclusion is supported by new Findings AQ7 and AQ8 of the October 21, 1999 decision (as previously modified).

2. The Major Modification, as proposed, is consistent with the 2002 Regional Policy Plan (as revised). This conclusion is supported by new Findings HAZ7, HAZ8, HAZ9, HAZ10, and AQ7 of the October 21, 1999 decision (as previously modified).

3. The project as proposed is consistent with local development by-laws. This conclusion supported by new Finding G7 of the October 21, 1999 decision (as previously modified).

4. Consistency with the Town of Sandwich's Local Comprehensive Plan is not required per new Finding G8 of the October 21, 1999 decision (as previously modified).

The Commission hereby approves with conditions the Major Modification application of Mirant Canal, LLC for the proposed addition of aqueous ammonia storage, handling and use at the power plant, provided the following conditions are met:

CONDITIONS

General
Conditions G1 – G7 of the original July 29, 1999 decision remain in effect. Condition G8 of the July 29, 1999 decision, added by a modification decision dated April 12, 2004, remains in effect. Conditions G1 – G3 and G5 - G7 of the original October 21, 1999 decision remain in effect. Condition G4 of the October 21, 1999 decision, as modified in a decision dated July 24, 2000 remains in effect. Condition G8 of the October 21, 1999 decision, as modified in decisions dated April 27, 2000 and June 5, 2000 remains in effect. New General Conditions G9 – G18 are added to the October 21, 1999 decision as shown below:

G9. This Major Modification decision does not and shall not extend, increase or otherwise change the duration of the original July 29, 1999 or October 21, 1999 Development of Regional Impact decisions or any timelines described in subsequent modification decisions.

G10. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this decision.

G11. The Applicant shall obtain all state and local permits required for the proposed project.

G12. No development work, as the term "development" is defined in the Act, shall be undertaken until all appeal periods have elapsed or, if such an appeal has been filed, until all judicial proceedings have been completed.

G13. Prior to issuance of a Building Permit for any phase of proposed construction, the Applicant shall submit final plans as approved by local boards for review by Commission staff to determine their consistency with this decision and/or information submitted as part of the DRI review. If the final plans approved by local boards are inconsistent with this decision and/or supporting information, then they shall be reviewed subject to Section 7 of the Commission's Administrative Regulations, as amended from time to time.

G14. Prior to use of the aqueous ammonia storage tanks, the Applicant shall obtain a Certificate of Compliance from the Commission which states that all conditions in this decision pertaining to issuance of a Certificate have been met.

G15. The proposed project shall be constructed in accordance with the following plans:

** Plan entitled "Canal Plant, Site Plan, With Unit 1 Aqueous Ammonia Tanks," undated, as attached to an August 3, 2004 letter from Attorney Ford, as modified by a Plan entitled "Canal Plant, Site Plan, With Unit 1 Aqueous Ammonia Tanks, Rev. A," undated, Shaw/Stone & Webster, Inc., as attached to a December 28, 2004 letter from Attorney Ford.*

** Plan entitled "Canal Plant, Preliminary Lighting, SK-BE-01," undated, Shaw/Stone & Webster, Inc., as attached to a December 23, 2004 letter from Attorney Ford.*

G16. The Applicant shall demonstrate to the Commission that a copy of this decision has been provided to the general contractor prior to the start of construction.

G17. The Applicant shall notify Commission staff of the intent to seek a Certificate of Compliance at least thirty (30) days prior to the anticipated date of use of the aqueous ammonia storage tanks. Such notification shall include a list of key contact(s) for questions that may arise during the Commission's compliance review. Commission staff shall complete an inspection under this condition, if required, within fourteen (14) business days of such notification and inform the applicant in writing of any deficiencies and corrections needed. The Applicant understands that the Commission has no obligation to issue a Certificate of Compliance unless all conditions are complied with or secured consistent with this decision. The Applicant agrees to allow Cape Cod Commission staff to enter onto the property which is the subject of this decision for the purpose of determining whether the conditions contained in the decision are met.

G18. The applicant shall be responsible for providing proof of recording of this decision to the Commission prior to issuance of a Certificate of Compliance.

Hazardous Materials/Wastes
Conditions HAZ1 and HAZ2 of the original July 29, 1999 decision are stricken. Condition HAZ3 of the July 29, 1999 decision, as modified in decisions dated June 18, 2003, April 12, 2004 and October 18, 2004 is hereby modified as shown:

HAZ3. ~~In the event that the applicant is unable to utilize the AOD urea system as described in this decision and Attorney Ford's July 8, 1999 letter, for only those reasons outlined in condition HAZ2, above, the applicant shall:~~

~~1.) Immediately provide written notice to the Commission and the Towns of Sandwich and Bourne describing the technical reasons for the inability to utilize the AOD urea system, methods for meeting the need for ammonia to supply the SCR unit and providing an anticipated schedule for repair of the AOD urea system.~~

~~2.) Be allowed~~ ***Until such time as a Certificate of Compliance is issued by the Commission relative to this decision, the Applicant*** is allowed to supply the SCR ~~unit~~ ***equipment on Unit #1 using aqueous ammonia on a temporary basis using tank trucks in accordance with the October 18, 2004 minor modification decision issued by the Regulatory Committee. This Major Modification decision also allows the Applicant to supply the SCR on Unit #1 with aqueous ammonia on an on-going basis after issuance of the Certificate of Compliance.*** ~~for not more than six (6) months from the date of this decision (October 18, 2004), or until the Cape Cod Commission completes its review of a Major Modification request by Mirant to use aqueous ammonia at the plant, whichever is sooner.~~ The ammonia shall be transported in accordance with all local, state and federal regulations and may be shipped by ***rail or by*** truck to the plant, ***with the primary preference being shipment by rail. Such shipment shall be in accordance with the requirements of the January 31, 2005 letter from Sandwich Fire Chief Newman to John Grenda, Operations Manager, Mirant Canal LLC (Attachment 1), and as may be amended per direction of the Bourne and Sandwich Fire and Police Departments. The Applicant shall provide to the Commission on an annual basis a written copy of said shipment requirements.***

Condition HAZ4 of the original July 29, 1999 decision is hereby modified as shown:

HAZ4. ~~In the event that the applicant utilizes ammonia on a temporary basis to supply the SCRs as outlined in condition HAZ3, above, the~~ ***The A***pplicant shall handle and store the ammonia in compliance with all local, state and federal hazardous materials regulations, Occupational Safety and Health (OSHA) requirements and emergency planning regulations. This includes but is not limited to OSHA workplace Right-to-Know requirements and the Emergency Planning and Community Right-to-Know Act.

Condition HAZ5 of the original July 29, 1999 decision remains in effect.

Condition HAZ6 of the July 29, 1999 decision, added by a modification decision dated June 18, 2003 is hereby modified as shown:

HAZ6. Shipment, delivery, storage and handling of the ammonia referenced in condition HAZ3, above, shall be subject to the following provisions:

~~a.) All deliveries of aqueous ammonia shall be made at night, between the hours of 9:00 PM and 7:00 AM.~~

~~b.) The travel route(s) and schedule for deliveries shall be made available to the Army Corps of Engineers Cape Cod Canal Field Office, as well as the Bourne and Sandwich Fire and Police~~

~~Departments in advance.~~

~~c.)~~ ***The maximum amount of aqueous ammonia normally held in storage at the plant site shall not exceed 120,000 gallons to supply air pollution control equipment on Unit #1.*** During product off-loading, the Applicant shall, ***at a minimum, provide***:

i.) ~~provide~~ a properly trained person to review the process and ensure that it is compliant with nationally-accepted chemical handling safety practices.

ii.) have in place an evacuation plan for the site that does not hinder the arrival of public safety personnel.

iii.) ~~provide~~ a suitable means to prevent a buildup of vapors ~~in the structure~~ and ensure that all ignition sources proximate to the off-loading process be extinguished and secured during the off-loading.

Conditions HAZ1, HAZ2 and HAZ4 of the original October 21, 1999 decision are hereby stricken. Condition HAZ3 of the original October 21, 1999 decision remains in effect and is hereby renumbered to be condition HAZ1. New Hazardous Materials/Waste Conditions HAZ2 and HAZ3 are added to the October 21, 1999 decision as shown below:

HAZ2. If aqueous ammonia is used to supply air pollution control equipment at the plant, the Applicant shall utilize aqueous ammonia of not more than 19.5%.

HAZ3. The ammonia unloading facility, storage tanks and containment area shall be constructed in accordance with the narrative from Shaw/Stone & Webster attached to the August 3, 2004 letter from Stinson & Ford. This includes but is not limited to provision of a containment area sufficient to encompass more than the combined volume of the ammonia storage tanks, a system to control liquid vapors and a further vapor suppression system. The Applicant shall also incorporate into the overall facility design requirements as may be stipulated by the Massachusetts Fire Marshall's office and/or the Sandwich Fire Department.

Air Quality

Air Quality condition AQ1 of the original October 21, 1999 decision, as modified in a decision dated July 24, 2000 remains in effect. Air Quality condition AQ2 of the original October 21, 1999 decision, as modified in decisions dated December 29, 1999 and July 24, 2000 is hereby modified as shown below:

AQ2. Prior to issuance of a Preliminary Certificate of Compliance ***for Phase Two of work to install an SCR on Unit #1,*** the applicant shall perform an air quality modeling assessment of the pollutant emissions of the Canal facility to select the best remote, in-the-field monitoring location(s) where the maximum concentrations can be expected. Based on the air quality modeling assessment, the applicant shall prepare a draft ambient air quality monitoring plan for review and approval by the Cape Cod Commission or its designee. The ambient air quality monitoring program shall include the measurement of nitrogen dioxide (NO_2), sulfur dioxide (SO_2), ozone (O_3), inhalable particulate matter (PM-10's and PM-2.5's) and vanadium. The applicant shall be responsible for the final design, installation, and operation of the ambient air quality program. The ambient monitoring program shall meet as a minimum the DEP's approval criteria. The draft air quality monitoring plan shall be submitted for review and approval by the Commission or its designee by January 1, 2000. Prior to issuance of a Final Certificate of Compliance ***for Phase Two of work to install an SCR on Unit #1,*** the Commission shall review and approve the final air quality modeling plan and monitoring program.

Air Quality condition AQ3 of the original October 21, 1999 decision, as modified in a decision dated July 24, 2000 remains in effect. Air Quality condition AQ4 of the original October 21, 1999 decision is hereby stricken.

New Air Quality condition, AQ4 is added to the October 21, 1999 decision as shown below:

AQ4. The Applicant shall, in consultation with the Cape Cod Commission staff, prepare a revised ambient air quality monitoring plan. This revised ambient air quality monitoring program may update, modify and/or supercede the parameters listed in condition AQ2 of the October 21, 1999 decision, and the May 2001 Ambient Air Quality Monitoring Plan for Mirant Canal Station approved by Commission staff. The revised ambient air quality monitoring plan shall, at a minimum, include the measurement of nitrogen dioxide (NO_2), sulfur dioxide (SO_2), ozone (O_3), total suspended particulates (TSP) and inhalable particulate matter (PM-10's and PM-2.5's). The Applicant shall be responsible for the final design, installation, and operation of the ambient air quality monitoring plan. The Applicant shall maintain an archive of the results from the ambient monitoring program required by this condition, and shall provide to the Cape Cod Commission annual reports.

Transportation
Transportation condition T1 of the July 29, 1999 decision is hereby modified as shown below:

T1. Prior to issuance of a Building and/or Foundation permit from the Town of Sandwich, and prior to issuance of a Certificate of Compliance from the Commission for the construction and other site work outlined in Attorney Ford's April 22, 1999 letter with attachments, ***which relates only to Phase One of installation of an SCR on Unit #1,*** the applicant shall provide the following to the Commission for staff review and approval:

a.) A construction schedule,
b.) A defined route for construction workers,
c.) A schedule for arrival and departure of construction workers,
d.) A defined route for the delivery of construction materials and urea, and
e.) A schedule for delivery of construction materials and urea.

Transportation conditions T1 and T2 of the October 21, 1999 decision remain in effect.
For clarity, Transportation condition T3 of the October 21, 1999 decision was stricken as a result of a modification decision dated July 10, 2000.

Community Character
Community Character condition CC1 of the October 21, 1999 decision, as amended in modification decisions dated February 14, 2000, June 5, 2000, and July 24, 2000 is hereby modified as shown below:

CC1. Evergreen plant material shall be planted as per the viewshed analysis plan dated 2/14/00 prior to the issuance of a Final Certificate of Compliance ***for Phase Two of the SCR installation on Unit #1.*** Such plantings shall consist of evergreens planted at 4' to 8' intervals, depending on species and size. Species, spacing and size shall be approved by Cape Cod Commission staff prior to the application for a Final Certificate of Compliance ***for Phase Two of the SCR installation on Unit #1.***

Should placing plantings in the ground prove infeasible, the applicant shall provide the Commission staff with an alternative plan for placing plant materials in containers of a suitable size. Plant species and size of container shall be approved by Cape Cod Commission staff prior to the application for a Final Certificate of Compliance ***for Phase Two of the SCR installation on Unit***

#1. Prior to issuance of a Final Certificate of Compliance ***for Phase Two of the SCR installation on Unit #1***, the applicant shall also provide a signed maintenance contract for watering and other plant care as described in condition CC2 of the October 21, 1999 decision. A draft maintenance contract shall be submitted for Commission staff approval prior to execution of the final contract.

Community Character condition CC2 of the October 21, 1999 decision, as amended in a modification decision dated July 24, 2000 is hereby modified as shown below:

CC2. Prior to the application for a Final Certificate of Compliance ***for Phase Two of the SCR installation on Unit #1***, the applicant shall provide a signed maintenance agreement for watering of newly installed plant material. Also included in the maintenance contract shall be provisions for mulching, pest management, staking and guying, removal of tree wraps, fertilization, and replacement of dead plant material. The maintenance contract shall take effect at the time the plantings are installed. The contractor shall maintain the specified planting for two full growing seasons, which extends from March 15 through October 31. A draft maintenance contract shall be submitted for staff approval prior to execution of the final contract.

Community Character condition CC3 of the October 21, 1999 decision, as amended in a modification decision dated July 24, 2000 is hereby modified as shown below:

CC3. If all required landscape improvements are not complete at the time a Final Certificate of Compliance ***for Phase Two of the SCR installation on Unit #1***, is sought from the Commission, any work which is incomplete shall be subject to an escrow agreement of form and content satisfactory to Commission counsel. The amount of the escrow fund under the escrow agreement shall equal 150% of that portion of the incomplete work, including labor and materials, with the amount approved by Commission staff. The escrow funds shall be payable to Barnstable County. The work shall be approved by Commission staff prior to release of the escrow funds to the applicant.

New Community Character condition, CC4, is added to the October 21, 1999 decision as shown below:

CC4. All exterior lighting for the project shall conform to the requirements of MPS 6.2.10 and Technical Bulletin 95-001. Should unexpected conditions arise during project construction that require adjustments to site exterior lighting fixtures, including substitutions of fixture heads, the Applicant shall obtain approval from Commission staff prior to their installation and/or use consistent with Section 7 of the Commission's Enabling Regulations with respect to revisions to approved DRIs. Modifications to the project's exterior lighting design made during renovation that are in accordance with the Commission-approved lighting information shall be considered as Minor Modifications #1 and may be approved by Commission staff. Prior to issuance of the Certificate of Compliance, Commission staff shall conduct a site visit to verify conformance of the exterior lighting design with MPS 6.2.10, Technical Bulletin 95-001 and exterior lighting finding CC3.

SEE NEXT PAGE FOR SIGNATURE AND NOTARIZATION

SUMMARY

The Cape Cod Commission hereby approves with conditions the modification of July 29, 1999 and October 21, 1999 DRI decisions (JR-98033 and JR-98033A), respectively, as modified by a series of decisions granted by the Commission's Regulatory Committee, pursuant to Sections 12 and 13 of the Act, c. 716 of the Acts of 1989, as amended, for the proposed delivery, use, handling and storage of aqueous ammonia to supply existing Selective Catalytic Reduction equipment on Unit #1 at the Canal electric generating plant located on the Cape Cod Canal in Sandwich, MA.

David Ansel, Commission Chair — Date: 2/28/05

COMMONWEALTH OF MASSACHUSETTS

Barnstable, ss 2/28, 2005

Before me, the undersigned Notary Public, personally appeared David Ansel, in his capacity as Chairman of the Cape Cod Commission, whose name is signed on the preceding document, and such person acknowledged to me that he/she signed such document voluntarily for its stated purpose. The identity of such person was proved to me through satisfactory evidence of identification, which was personal knowledge of the undersigned.

Gail P. Hanley
Notary Public

My Commission Expires:
October 13, 2011

SANDWICH FIRE DEPARTMENT
DENNIS E. NEWMAN, *Chief*

115 Rte. 6A, P.O. Box 1340
Sandwich, Massachusetts
02563-1340

Tel: 508-888-0525
Fax: 508-833-8010

January 31, 2005

John F. Grenda
Operations Manager
Mirant Canal, LLC

Dear Mr. Grenda:

This is to clarify the transportation protocol and training points covered in my memo of December 20, 2004 regarding the plans to install Ammonia storage tanks at the Mirant Power station in Sandwich on the Cape Cod Canal.

As a routine matter the 19.5% aqueous Ammonia will be transported by rail when the permanent aqueous ammonia storage system is installed at the Canal Plant. If rail transport is not available in a timely manner to maintain operations, truck transport may be used, as it is now from Midnight to 0600 hours. However, if for safety reasons due weather or other problem that prevents delivery during the early morning hours the product may be delivered later in the day. Any time truck transport is used Mirant will notify the Sandwich and Bourne Fire and Police Departments. The procedure described below shall be utilized.

1. Mirant will contact Barnstable County Control at 508-375-6111 or 508-362-3434 of the intended deviation from rail transport and will state the approximate time of delivery and route to be taken by the trucking company.
2. BCC will then notify Bourne and Sandwich Fire and Police Departments by radio. This will ensure that the respective public safety agencies have been contacted and have acknowledged receipt of the information.

Mirant will provide training and equipment as described below. This is to include funding for these public safety agencies to cover their respective overtime, related tuition and materials costs.

1. Sandwich and Bourne Firefighters will be trained in handling Railroad Emergencies by the Massachusetts Fire Academy or an entity approved by them. This will include the ability to work on an actual Railroad tank car of the same type and design that will be used in the transport of the product.
2. Sandwich and Bourne Police will be trained to an awareness level of this product and what their roles and responsibilities would be should there be a release.
3. As Mirant has in the past, will provide any specialized equipment that may be needed for training or mitigation of an incident. Said equipment will be housed

at the Sandwich and/or Bourne Fire Department buildings as deemed appropriate by the respective Chiefs.

4. Firefighters will receive ongoing annual training to maintain Hazardous Material Operational Skill levels as required by the National Fire Protection Association standards on this topic as it relates to the product.
5. Police Officers of both Towns will require ongoing training to maintain Hazardous Material Awareness Skill levels as required by the National Fire Protection Association standards on this topic.

Specifics hours of training and equipment will be provided later this spring.

Thank you for this opportunity to work with Mirant to keep this community safe.

Dennis E. Newman, Chief
Sandwich Fire Department

cc: Michael Miller, Chief Sandwich Police
John Ford, Chief Bourne Police
Charles Klueber, Chief Bourne Fire
Peter Thomas, Assistant Director Barnstable County Control