UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	NRC PUBLIC DOCUMENT ROOM
METROPOLITAN EDISON COMPANY	Docket # 50-289 (Re-start)
(Three Mile Island Nuclear Station, Unit #1)	

AMENDED CONTENTIONS

Petitioner, Chesapeake Energy Alliance, Inc. (CEA), hereby files its amended contentions concerning the possible re-start of TMI-1 nuclear reactor. The amended contentions submitted below reflect changes from CEA's draft contentions as a result of CEA's greater awareness of the suitable form of contentions following CEA's October 16 meeting with counsel from NRC and licensee, and incorporate changes discussed at that meeting. CEA's amended contentions supercede entirely CEA's draft contentions.

The Commission's Order and Notice of Hearing of August 9, 1979, notes that the subjects to be considered at the hearing shall include:

(1) Whether the 'short term actions' recommended ... are necessary and sufficient to provide reasonable assurance that the (TMI-1) facility can be operated without endangering the health and safety of the public, ...

(2) Whether the 'long term actions' recommended ... are necessary and sufficient to provide reasonable assurance that the facility can be operated for the long term without endangering the health and safety of the public, ...

The following contentions are submitted concerning the sufficiency of the recommended actionsinvolving the re-start of TMI-1:

(1) CEA contends that the Atomic Safety and Licencing Board's (ASLB) action in permitting the re-start of TMI-1 would constitute a major Federal action significantly affecting the human environment, and that, therefore, an Environmental Impact Statement (EIS) is required pursuant to the provisions of the National Environmental Protection Act (NEPA) (42 U.S.C. §4332(2)(c)). CEA contends that the scope of the EIS should not be limited to psychological distress issues, but should also evaluate factors such as the impact of the re-start on business decisions to re-locate to, or remain in, the TMI area, the availability of alternative means to meet the energy needs suuplied by TMI-1, and the impact of a decision to permit re-start of TMI-1 on the overall climate of licensing and construction permit decisions involving nuclear power plants.

In support of this contention on the need for an EIS, CEA notes that the ASLB, in its Memorandum and Order on Motions to Modify (October 16, 1979) acknowledges that the Federal action in this proceeding may well be different, in degree at least, from matters such as the location of a jail or garages (each of which required an EIS), with the clear implication that this proceeding involves a more major Federal action (p.3). The fact of the 3/28/79 accident, and of the indisputable nexus between TMI-1 and TMI-2 involving the identical design of reactor, the same licensee, and the identical environment (physical/biological and social), make it clear that by no stretch of the imagination can the decision

to re-start TMI-1 be considered as a routine re-start decision (as the licensee might be expected to contend). The Council on Environmental Quality guidelines, 40 C.F.R. §1500, applicable to all federal agencies for the purposes of implementing the EIS provisions of NEPA, and specifically adopted in the NRC regulations, note that "Significantly, as used in NEPA, requires consideration of both context and intensity." 40 C.F.R. §1508.27. Very clearly, the context of TMI-1 re-start can not be separated from the 3/28/79 accident at TMI-2. Furthermore, in evaluating whether the ASLB decision to permit re-start of TMI-1 "significantly affects the environment", the overall context of climate surrounding the nuclear industry and related licensing and construction decisions must not be overlooked, as must equally not be overlooked the potential impact of the ASLB's decision in this proceeding on that climate. The recent example of VEPCO's decision to convert North Anna Units 3 & 4 to coal-burning rather than nuclear powered plants, and the severe financial difficulties experienced in the construction of the Seabrook, N.H. reactor are but two of many possible examples of the uncertainty surrounding the nuclear industry. It would be a denial of reality were the ASLB or licensee to contend that the decision in this proceeding will not have a significant affect on the development of the nuclear industry, and hence on all those aspects of the environment that stand to be impacted by, or alternatively, to be spared the impact of, the future development of the nuclear industry. In further support of this contention, CEA submits that the context of alternative means of providing for the energy needs that might be supplied by TMI-1, including but not limited to the development and awareness of solar, biomass, insulation, and conservation alternatives to nuclear power, has changed dramatically since the original EIS

was prepared for TMI-1 win 1973, hence undermining the validity of that EIS in respect to its consideration of alternatives. CEA submits that the use of alternative means such as solar and conservation methods to meet the energy needs that might otherwise be met by TMI-1 would also have significant economic and social impact, primarily by way of the jobs that would thereby be created in the licensee's service area, and that such economic and social impact is cognizable under NEPA provisions. (see, for example, McDowell v Schlesinger, 404 F.Supp.221, on the court's finding of the impact on a local economy constituting 'significant effects' for consideration under NEPA). CEA also notes here that the availability of alternative means for meeting energy needs that might otherwise be met by TMI-1 tends to rebut arguments propounded by licensee in its Answer to Commission's Order and Notice of Hearing Dated August 9, 1979,(p.3), and that further an active policy on the behalf of licensee to promote solar and conservation methods in its service area could serve as a model to be followed by other utilities, and have an overall effect of reducing the need for import of foreign oil. CEA will also submit further arguments in support of this contention at the Special Pre-Hearing Conference, based on a review of the original TMI-1 EIS, documenting ways in which that EIS is no longer adequate.

(2) CEA contends that the emergency preparations considered in the Commission's August 9 Order and Notice of Hearing are inadequate in that they do not provide for:

(a) evacuation planning and exercises for the area within the one hundred (100) mile radius that can be threatened by immediate fatalities from radiation emanating from a core meltdown and

breach of containment at TMI-1. CEA contends that such preparations are necessary prior to a re-start of TMI-1 in light of the estimates of the 1965 revised edition of WASH 740 of the potential damage from such an accident, and of the possibility that such an accident might occur at TMI-1. In support of this contention, CEA submits that there was an imminent possibility of such an accident at TMI-2 during the 3/28/79 accident, and that the nexus between TMI-1 and TMI-2 is sufficiently strong due to their identical design, and common licensee, and that the NRC and licensee have failed to demonstrate that they have considered every possible sequence of events that could lead to an accident as severe or more serious than the 3/28/79 TMI-2 accident.

(b) the provision of adequate emergency medical facilities equipped to handle large numbers of radioactively contaminated casualties from an accident at TMI-1 on a scale up to that noted in (a) above. CEA contends that the provision of such facilities is necessary prior to a re-start of TMI-1 given the above stated nexus between TMI-1 and the 3/28/79 TMI-2 accident, and given the absence of such medical facilities in Baltimore, the closest major metropolitan area to TMI-1 and a natural location to which casualties from such an accident would be transported, as well as in other adjacent areas. CEA contends that the receipt and treatment of such radioactively contaminated casualties at a hospital that is not equipped to isolate and decontaminate them would have a major adverse impact on other patients and on critically needed medical equipment.

(c) the provision of adequate emergency measures to prevent the possibility of dumping of highly radioactive water into the Susquehanna, and from there into the Chesapeake Bay, in

the event of an accident at TMI-1 such as described in (a) above. CEA contends that such provision is necessary prior to the restart of TMI-1 given the above stated nexus between TMI-1 and the 3/28/79 TMI-2 accident, and given the inestimable value of the Chesapeake Bay, including, but in no way limited to, its economic value of approximately $100 million per year for the Maryland seafood industry sustained by the Bay, and given the irreversible harm that could befall the Bay were significant quantities of highly radioactive water to be dumped into the Susquehanna River, the principal tributary of the Bay, as the result of a TMI-1 accident such as described in (a) above. CEA contends that among the necessary provisions to protect water quality would be but would not be limited to the construction of substantially greater shielded auxiliary storage tanks at the TMI facility.

(d) the provision of adequate emergency measures to protect livestock within a fifty mile radius of TMI. CEA contends that such provisions, including, but not limited to the preparation of evacuation contingency plans for livestock and the provision of adequate education to farmers in the above stated area for the optimal protection and management of livestock in the event of an accident as in (a) above, are necessary given the above stated nexus between TMI-1 and the 3/28/79 accident and given the prevalence of dairy farming in the TMI area and its importance in the local economy, and given the inadequate preparation, for the protection of livestock, that became evident during and after the 3/28/79 TMI-2 accident.

(3) CEA contends that the 'short term actions' are inadequate in that they fail to specify the extent to which offsite monitoring is to be upgraded prior to re-start of TMI-1, and hence no basis is provided for ascertaining the adequacy of the monitoring to be described by the Commission. CEA contends that the establishment of specifications for offsite monitoring by the Commission, or the submission of plans for upgrading monitoring by the licensee is necessary as necessary for CEA to determine or assess the adequacy of such monitoring. CEA contends that the offsite monitoring must provide for complete assessment of the extent pattern and density of dispersal of radiation, and must also provude for fully adequate monitoring of discharges into the Susquehanna River and for adequately monitoring the dispersal of such discharges, and that the monitoring devices must have the capability of alpha, beta, and gamma radiation directly, rather than only providing for the inference of levels of alpha and gamma radiation from the observed levels of beta radiation. CEA contends that that the above stated provisions are necessary so that complete and accurate information on released radiation is available in the event of an accident at TMI-1 involving significant release of radiation into the environment, and that the absence of such information during the 3/28/79 TMI-2 accident denied the public information essential to ascertaining the risk to which it was exposed.

(4) CEA contends that there exists conflict of interest in the present arrangement whereby licensee is responsible for monitoring offsite radiation, in that the public is not guaranteed independent and impartial measurement and reporting of released radiation. CEA further contends that given the present reputation of licensee--

a reputation established in substantial part by licensee's withholding or falsification of critical information gfrom both the public and the Commission at the time of the 3/28/79 accident at TMI-2--that the public has sufficient reason to question the validity or credibility of information on observed radiation offsite in the absence of a monitoring agency independent of licensee, and that the public has an indisputable right to information that is both accurate and perceived to be accurate.

(5) CEA contends that the short term actions are inadequate in that they do not include provisions for denying re-start of TMI-1 until the radioactively contaminated water from TMI-2 is fully decontaminated and disposed of in a manner that provides for no possible interference from that contaminated water with storage space that might be required in the event of a TMI-1 accident (as in 2(a) above), and that also provides for no possible accident in the decontamination and disposal of the TMI-2 radioactive water that might impact on the operation and emergency provisions of TMI-1. CEA contends that there is sufficient controversy over the potential effectiveness of EPICOR-II (see for example Dr. Louis Kosanek's response to NUREG 0591, the Environmental Assessment of EPICOR-II), and over the possibility of an accident involving EPICOR-II, that the possibility of such an accident happening and impacting TMI-1 can not be dismessed. CEA further contends that the existence of present civil litigation concerning the decontamination and disposal of the TMI-2 radioactive water brought by the City of Lancaster, PA, and by the Susquehanna Valley Alliance, and the prospect of further such litigation that may involve the State of Maryland and/or Harford and Cecil Counties in Maryland opposing the disposal of 'decontaminated' water into the Susquehanna River creates the

distinct possibility of substantial delay in the disposal of the TMI-2 water such that it remains an encumbrance on the storage facilities of TMI that it may interfere with emergency storage facilities that may be needed in the event of an accident at TMI-1. CEA further contends that, absent an Environmental Assessment Statement or an EIS concerning the planned treatment and disposal of the water presently in the TMI-2 containment building, it remains to be determined if such treatment will be safe and adequate, and whether such treatment and subsequent disposal will not be delayed in such a way that it interferes with the provision of adequate emergency water storage space for TMI-1.

(6) CEA contends that under no circumstances should TMI-1 be permitted to re-start while TMI-2 continues to 'leak' contaminated water. CEA contends that as long as TMI-2 continues to generate surplus radioactive water that TMI-2 continues to pose the thr at of returning to an active emergency status, posing potentially severe conflict with th opertaion of TMI-1.

(7) CEA contends that, absent specifications by the Commission, or plans prepared by the licensee, there is inadequate information to determine whether radiation monitoring provisions will be adequate to discrimate between effluents of TMI-1 and TMI-2. CEA contends that such specifications or plans must be made available to intervenors so that the plans or specifications can be evaluated to determine if they are adequate to discrim nate between effluents of TMI-1 and TMI-

(8) The history of licensee's management of TMI-2 ashows clear evidence of the inadequacy of licensee's management capability (see, for example, instances cited by Steven Scholly in Contention 14 of his Final Contentions) CEA contends that licensee has not shown any clear and convincing evidence of any significant changes in its management practices,

and that the burden of proof rightfully lies with the licensee, given the 3/28/79 accident, to present such clear and convincing evidence. CEA contends that licensee must first be required to demonstrate its capability to clean up the damage from the accident of 3/28/79 before it is allowed to subject the public to the risk of another such accident. CEA contends further that licensee should show cause as to why its operating licence should not be suspended as a result of its having allowed the 3/28/79 accident to have taken place.

(9) CEA contends that licensee has inadequate financial resources to operate TMI-1 safely. In support of this contention, CEA submits that licensee has frequently raised publicly the specter of possible bankruptcy since the 3/28/79 accident, is faced with an estimated $400 million clean up cost for TMI-2 (a figure that, based on the previous record of licensee in its containment of contract costs may well prove to be very substantially below the final clean up costs). CEA contends, however, that licensee's response to the Commission concerning its financial status will be required before CEA will be able to make final determination as to the adequacy of licensee's financial resources, as will the outcome of upcoming PUC hearings on whether TMI-1 should be taken out of licensee's rate base. CEA contends that a critical aspect of licensee's financial capability that must be investigated is licensee's ability to withstand an accident at TMI-1 commensurate with the 3/28/79 accident at TMI-2 (given the considerations elaborated in contention 2(a) above) and have adequate resources to cover all the costs of clean up, etc emanating from such an accident.

(10) In consideration of the 'long term actions' CEA contends that they are inadequate in that they fail to consider a number of factors that are also necessary to ensure the haalth and safety of the public. CEA contends that the following factors must be considered and evaluated for their impact on the health and safety of the public prior to the re-start of TMI-1:

(a) The danger to the health and safety of the public from spent fuel and other waste from TMI-1, given that no long term safe storage has yet been developed, and that Table S-3 formerly used by the Commission in thi is no longer erecognized as valid in this regard.

(b) The danger to the health and safety of the public from the release of Radon-222 from the uranium mined and milled for TMI-1, given the estimated 1,220,000 deaths expected from radon emissions per reactor year of operation--a figure that has not been disputed bybthe Commission--and given the presently undetermined value for the impact of Radon-222 in Table S-3.

(c) The danger to the health and safety of the public from the possible loss or theft of enriched uranium destined for TMI-1, given the unaccounted-for 240 lbs of enriched uranium from the Nuclear Fuel Services Enrichment plant in Tennessee, and given the ready availability of information con cerning the means of constructing a nuclear bomb, and given furthermore the recent nature of the discovery of the missing uranium and the fact thab such a possibility is not presently considered by the Commission in the granting of licenses.

(11) CEA contends that the extent of information concerning nuclear regulatin in general, and TMI in particular, has become so immense that a state of information overload has been reached, so that it is becoming humanly impossible to absorb, digest, and understand all the pertinent information, and at the same time to place it in a proper perspective in relation to health and safety concerns and the probability of the possible sequence of events that could lead to an accident as swrious or more so than the 3/28/79 accident. CEA contends that as a result of this, the regulatory process itself has become unreliable and inadequate, and indeed that the accident of 3/28/79 is in part attributable to the failure of the regulatory process. CEA contends that this breakdown has resulted from the increasing awareness that virtually every system (mechanical, electrical human, etc.) involved in the operation of a nuclear plant is at some level critical to its safe operation. CEA further contends that the extent of regulation necessary for a nuclear reactor was not understood when the NRC, and before it the AEC were established, and that the regulatory mechanism conceived is not adequate for its purpose. CEA contends that the re-start of TMI-1 should be delayed pending a complete review of the regulatory process, including consideration of the recommendations in this regard of the Kemeny Commi Commission. In support of this contention, CEA submits as an example consideration of all the documents that have been submitted to parties in this proceeding.

(12) CEA contends that the Commission and licensee have failed to demonstrate that they have considered and evaluated all possible sequences of events that could occur at TMI-1, and that re-start of TMI-1 should be denied until all such sequences have been considered and evaluated to determine if they could lead to

an accident as serious as the 3/28/79 TMI-2 accident. CEA contends that such consideration and evaluation is necessary given that the 3/28/79 accident resulted from such a sequence of unanticipated events, and given thatother sequences of events that have as yet been unconsidered may have equally serious/consequences. CEA contends that consideration and evaluation lof all such sequences is necessary in order that operators can be adequately prepared for such contingencies, and also te determine if additional modifications to the design of the reactor and/or of the controls is necessary to prevent the adverse consequences of dsuch sequences of events.

(13) CEA contends that there is a specific need for the establishment of training for operators that addresses the problem of a 'mindset' that denies information indicative of serious reactor problems. In support of this contention, CEA submits that such a mindset contributed to the gravity of the 3/28/79 accident, as reported in NUREG 0600, and that the routine occurrence of abnormal transients will tend to condition operators to a mindset that underestimates the significance of (sequences of) abnormal transients. CEA contends that specific training provisions designed to address this 'mindset' problem are necessary prior to the re-start of TMI-1 in order to prevent the development or presence of such a mindset among TMI-1 operators from contributing to a serious accident at TMI-1.

CEA reserves the right to formulate further contentions in this matter in the light of information not presently available to CEA, and to submit further evidence in support of the above contentions in the event the acceptability of the above contentions is challenged on the grounds of lack of sufficient evidence in support of the contentions. CEA also reserves the right to make such minc modifications to the above contentions

as are required to meet specific needs concerning the exact appropriate format for framing contentions, provided that such modifications serve to make the above contentions serve the intended purpose of allowing the substantive issues raised by CEA to be adequately considered bin this proceeding. CEA claims, inter alia, its previous inexperience in intervention proceedings as justification for CEA s reserving the above stated rights.

Respectfully submitted

Robert G. Pollard, for
CHESAPEAKE ENERGY ALLIANCE, INC.

Dated this 22nd day of October, 1979,
Baltimore, Maryland.

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In the Matter of

METROPOLITAN EDISON COMPANY

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Reactor, Unit #1)

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CERTIFICATE OF SERVICE

I hereby certify that a copy of this AMENDED CONTENTIONS was served on the following this 22nd day of October 1979 by deposit in the United States Mail, first class.

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