

From: <eddie.grant@exeloncorp.com>
To: <jps1@nrc.gov>, <nvg@nrc.gov>
Date: 1/24/05 9:46AM
Subject: EP ETE RAI Responses to Letter No. 12

Attached is your copy of the response to RAI letter No. 12 that is being mailed today.

Thanks,
Eddie R. Grant
Early Site Permit Project
610.765.5001 voice
610.765.5755 fax
850.598.9801 cell

This e-mail and any of its attachments may contain Exelon Corporation proprietary information, which is privileged, confidential, or subject to copyright belonging to the Exelon Corporation family of Companies. This e-mail is intended solely for the use of the individual or entity to which it is addressed. If you are not the intended recipient of this e-mail, you are hereby notified that any dissemination, distribution, copying, or action taken in relation to the contents of and attachments to this e-mail is strictly prohibited and may be unlawful. If you have received this e-mail in error, please notify the sender immediately and permanently delete the original and any copy of this e-mail and any printout. Thank You.

Mail Envelope Properties (41F50A35.C3C : 16 : 60476)

Subject: EP ETE RAI Responses to Letter No. 12
Creation Date: 1/24/05 9:30AM
From: <eddie.grant@exeloncorp.com>

Created By: eddie.grant@exeloncorp.com

Recipients

nrc.gov
owf4_po.OWFN_DO
NVG (Nanette Gilles)

nrc.gov
owf2_po.OWFN_DO
JPS1 (John Segala)

Post Office
owf4_po.OWFN_DO
owf2_po.OWFN_DO

Route
nrc.gov
nrc.gov

Files	Size	Date & Time
MESSAGE	1087	01/24/05 09:30AM
TEXT.htm	3005	

Blank Bkgrd.gif	145	
2005-01-24 Kray RAI 12 Response ETE.pdf		1904034
Mime.822	2612477	

Options

Expiration Date:	None
Priority:	Standard
Reply Requested:	No
Return Notification:	None

Concealed Subject:	No
Security:	Standard

Exelon Nuclear
200 Exelon Way
KSA3-N
Kennett Square, PA 19348

Telephone 610.765.5610
Fax 610.765.5755
www.exeloncorp.com

52.17

January 24, 2005

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Early Site Permit (ESP) Application for the Clinton ESP Site
Docket No. 52-007

Subject: Response to Request for Additional Information Letter No. 12

Re: Letter, U.S. Nuclear Regulatory Commission (N. V. Gilles) to Exelon
Generation Company, LLC, (M. Kray), dated December 9, 2004, Request
for Additional Information (RAI) Letter No. 12 – Exelon Early Site Permit
(ESP) Application for the Clinton ESP Site (TAC No. MC1122)

Enclosed, as requested in the referenced letter, are responses to the RAIs associated with
the topic of evacuation time estimates as related to the Exelon Generation Company, LLC
(EGC) ESP.

Please contact Eddie Grant of my staff at 610-765-5001 if you have any questions
regarding this submittal.

Sincerely yours,



Marilyn C. Kray
Vice President, Project Development

U.S. Nuclear Regulatory Commission

January 24, 2005

Page 2 of 3

TPM/erg

cc: U.S. NRC Regional Office (w/ enclosures)
Mr. John P. Segala (w/ enclosures)

Enclosures

AFFIDAVIT OF MARILYN C. KRAY

State of Pennsylvania

County of Chester

The foregoing document was acknowledged before me, in and for the County and State aforesaid, by Marilyn C. Kray, who is Vice President, Project Development, of Exelon Generation Company, LLC. She has affirmed before me that she is duly authorized to execute and file the foregoing document on behalf of Exelon Generation Company, LLC, and that the statements in the document are true to the best of her knowledge and belief.

Acknowledged and affirmed before me this 24th day of January, 2005.

My commission expires 10-6-07.



Notary Public

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Vivia V. Gallimore, Notary Public
Kennett Square Boro, Chester County
My Commission Expires Oct. 6, 2007

Member, Pennsylvania Association Of Notaries

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (a)

Provide the following information regarding the Evacuation Time Estimates (ETE) for Clinton Power Station:

(NOTE: RAIs (a) through (j) relate to Section II.A. "Evacuation Time Estimate Analysis" in Supplement 2 to NUREG-0654.)

a) Discuss the rationale for not including shadow or voluntary evacuation.

EGC RAI ID: R17-1

EGC RESPONSE:

Shadow or voluntary evacuation was not addressed in the 1993 ETE study for Clinton Station, because the population density in the area within one to two miles outside of the EPZ boundaries is very sparse. The largest communities located along primary evacuation routes and within a few miles outside of the EPZ are Maroa, located along State Route 51 south of the EPZ, and Heyworth, located along State Route 51 north of the EPZ. The population (2000 census) of Maroa City is only 1,654 (651 households), and the population of Heyworth Village is only 2,431 (897 households). The ETE simulations indicate that Route 51 has the capacity to accept traffic from these communities, in addition to the traffic evacuating from the EPZ. Voluntary evacuation of the entire resident population from Maroa City would contribute only about 325 vehicles per hour, while voluntary evacuation of the entire resident population from Heyworth would contribute about 450 vehicles per hour. These volumes could be accommodated on Route 51 and the other roadways serving these communities, without interfering with traffic evacuating from the EPZ.

The evacuation simulations do not indicate any expected congestion on Route 51, proceeding north or south from Clinton, for any of the evacuation scenarios. The conditions that control the predicted evacuation times reflect local congestion on roadways within the city of Clinton. (See response to RAI 13.3-20 (u) and (v) for more details concerning predicted traffic flow.)

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (b)

b) Provide site specific distributions for hospitals, nursing homes and correctional facilities addressed in the 1993 ETE Study or describe other studies that were used to arrive at the assumption that these facilities would commence evacuation between one to two hours after the 15 minute notification.

EGC RAI ID: R17-2

EGC RESPONSE:

The departure time distribution used in the 1993 ETE study for the special facilities (including hospitals, nursing homes and correctional facilities) was formulated (with departures between 60 and 150 minutes following the decision to evacuate) based on information obtained from individual facilities and from county emergency management officials responsible for coordinating transportation resources for transport-dependent residents and special facilities. These assumptions were reviewed with the Illinois Emergency Management Agency and the responsible county agencies prior to performing the ETE analysis.

For the evacuation simulations, the goal is to estimate evacuation times for the entire evacuating population, including special facilities. The evacuation model, NETVAC, does not distinguish among vehicles originating from different nodes or facilities, and the evacuation model design does not allow a different departure time distribution to be specified for each facility. Analysis for individual facilities is generally a manual effort, utilizing the evacuation model results to estimate travel times along specific routes. [See response to RAI 13.3-20 (c).]

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (c)

c) Regarding the 1993 ETE Study, provide a separate analysis of the evacuation time estimates for special populations for normal and adverse conditions.

EGC RAI ID: R17-3

EGC RESPONSE:

An analysis of evacuation time estimates for individual special facilities is provided in Attachment A.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

RAI 13.3-20 - Attachment A

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (d)

d) Regarding the 1993 ETE Study: Discuss the basis for neighbors and State/local authorities contributing one vehicle per household for the transport-dependent (non-auto-owning) population. Provide site-specific data regarding how many non-auto-owning households are in the plume exposure pathway emergency planning zone (EPZ). Provide the methodology for determining the transport-dependent population. Provide an estimate of the number of auto-owning residents versus transport-dependent residents. Provide information on the initiation/mobilization time distribution for transport-dependent population. Provide a separate estimate of the time required to evacuate the transport-dependent population.

EGC RAI ID: R17-4

EGC RESPONSE:

Estimates of the number of auto-owning and transport-dependent households by Sub-Area for the EPZ are provided in Attachment B. These data indicate that the large majority of transport-dependent households (259 out of 302) are located in the city of Clinton (Sub-Area 7). The DeWitt County Emergency Services Disaster Agency (ESDA) indicates that the transport-dependent residential population within the city of Clinton will evacuate via buses provided by the city, plus assistance from auto-owning residents (generally neighbors or relatives). The buses will evacuate residents from a designated set of pick-up locations in the city. The buses will evacuate residents from Clinton to the reception center in Decatur. According to ESDA, the number of buses available should be able to evacuate transport-dependent residents in a single pass. If residents arrive at pickup points after the buses have departed, one or more buses would return to Clinton to evacuate any remaining residents. It is assumed that the small number of transport-dependent residents in other sub-areas will evacuate with assistance from neighbors or relatives.

For the 1993 study, one vehicle per household was assigned for the entire residential population, including transport-dependent households. In the 1993 study, the distribution of mobilization times for the transport-dependent population was assumed to be the same as for the general residential population. The analysis of evacuation times for special facilities (See response to RAI 13.3-20 (c)) indicates that the population of special facilities located in the city of Clinton will mobilize and evacuate in less time than the general population. The evacuation time estimates for the general population in Clinton are therefore considered representative (or conservative) for transport-dependent residents.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

RAI No. 13.3-20 - Attachment B

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (e)

e) Clarify whether the characteristics for each segment analyzed in the 1993 ETE Study are for the narrowest section or bottleneck, if the roadway is not uniform.

EGC RAI ID: R17-5

EGC RESPONSE:

When roadway conditions are not uniform over the length of a link, roadway dimensions (e.g., lane width, side width) represent the most restrictive conditions over the link.

In general, multiple links are used when a significant change in roadway conditions is encountered (e.g., change in lane width, add or drop lane, change in speed limit).

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (f)

f) Regarding the roadways that were driven and verified in May 2002, discuss any road changes identified including new or changed access points, roadway condition, and whether new roadway constrictions have been constructed that may reduce the capacity of sections of the route.

EGC RAI ID: R17-6

EGC RESPONSE:

The verification of roadways was indeed performed in May of 2002 as part of a validity test of the 1993 ETE conclusions. No differences were noted. As stated in Section 2.3.3 of the EGC ESP Emergency Plan, Analysis - Comparison of Infrastructure and Population, "Conclusion 1: The infrastructure baseline used in the 1993 ETE has not changed, and therefore, does not impact the conclusions of estimated evacuation times."

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (g)

g) Discuss how the NETVAC model accounts for traffic control or whether the ETE is reduced if these traffic control measures are implemented. Clarify whether existing traffic control devices will prevail during an evacuation or traffic control points will be manned by emergency personnel for traffic control.

EGC RAI ID: R17-7

EGC RESPONSE:

The NETVAC evacuation model has two operating modes: the first assumes traffic flow at intersections consistent with existing traffic controls (signals operating on normal cycles, stop signs observed, etc.), while the second assumes that those controls would be over-ridden by emergency personnel, who would then direct traffic at designated control points to optimize the flow of evacuating vehicles.

The decision on which mode to use for a given ETE study is based on discussions with emergency response agencies responsible for managing the evacuation. If the agencies indicate that plans call for emergency personnel to override existing traffic controls, then NETVAC is run in the "over-ride" mode. If plans call for emergency personnel to manage traffic flow, while existing controls remain in operation, then NETVAC is run in "normal" mode. For the 1993 study, the NETVAC model was run assuming existing traffic controls would remain in place.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (h)

h) Discuss why there is such a small difference in the ETE for the evacuation of the entire plume exposure pathway EPZ between the winter weeknight adverse conditions and normal conditions in the 1993 ETE Study.

EGC RAI ID: R17-8

EGC RESPONSE:

Winter weeknight scenarios have the lowest vehicle demand and the shortest evacuation time estimates. The relatively short evacuation times for the winter weeknight scenarios (180 minutes for normal weather, 185 minutes for adverse weather) indicate that NETVAC predicts few delays due to traffic congestion.

Based on a review of the simulation results, the primary controlling factor that determines the ETEs for these two cases is intersection capacity at a few locations in the city of Clinton. The primary effect of adverse weather on NETVAC simulations is to reduce roadway capacity and travel speeds; intersection capacity is largely unaffected. Since the number of vehicles is identical for "normal" and "adverse" weather conditions, the time for traffic to clear the critical intersections is the same for both cases.

The small difference in ETEs reflects the travel time from Clinton to the EPZ boundaries. The travel distance is roughly 4 miles; at 30 mph, this requires 8 minutes, while at 21 mph, it takes about 12 minutes.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (i)

i) Regarding the 1993 ETE Study, discuss the basis for the assumption that 50,000 people in 16,500 additional vehicles will enter the evacuation route during the Apple and Pork Festival. If park and ride or shuttles are used during the event, discuss the dependency of the people attending the festival on public transportation to get to their vehicles. Discuss whether any of these vehicles will return home to pack or pick up relatives prior to evacuating the plume exposure pathway EPZ. Discuss the estimated time to mobilize from the festival to start the evacuation. Provide trip generation times for this event.

EGC RAI ID: R17-9

EGC RESPONSE:

The correct numbers for the 1993 ETE Study are 50,000 people in 16,667 vehicles (3 persons per vehicle). For the Apple & Pork Festival scenario, this population is separate from (in addition to) the residential population. Consequently, these vehicles were assumed to depart directly from the Apple & Pork Festival and exit the EPZ. (This obviously represents a substantial amount of double-counting.) Vehicles departing from the Festival were assigned to 8 departure nodes in the city of Clinton.

The assigned distribution of departure times for vehicles from the Apple & Pork Festival was 30 to 60 minutes, the standard time distribution used for recreation activities. As a practical matter, however, the NETVAC simulations indicate that it would take more than 3 hours for the local roadway network to absorb this many vehicles, regardless of the assigned distribution of departure times. (At the assigned entry nodes, "Spillback" conditions persist for more than 3 hours.) According to local officials, the park and ride shuttles can move up to 20,000 people per hour to remote parking areas, or 50,000 people in 2.5 hours.

Local officials were unable to provide a breakdown of Festival attendance based on location of residence. Since the population residing inside the EPZ is only 13,268, the large majority of the 50,000 attending the Festival must reside outside of the EPZ. If the scenario were revised to account for residents returning home from the Festival, prior to evacuating the EPZ, this would lengthen the departure times for the residential population, but it would also reduce the number of vehicles evacuating directly from Clinton, and it would reduce the total number of evacuating vehicles.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (j)

j) Since the 1993 ETE Study adds 50,000 people to the transient population for the Apple and Pork Festival, discuss the basis for the population estimate of 22,000 people per day for the festival that is used in Section 2.3.4, "Analysis - Special Event," in the EGC ESP Emergency Plan.

EGC RAI ID: R17-10

EGC RESPONSE:

The value of 22,000 people per day for the festival in Section 2.3.4 of the EGC ESP Emergency Plan is incorrect. According to the DeWitt County ESDA, evacuation planning is based on estimated maximum attendance of 50,000 people.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

The last paragraph in Section 2.3.4 of the EGC ESP EP will be revised to read:

The current estimate of peak population for the festival remains the same as in 1993: about 50,000 people. Therefore, the evacuation times of 380 minutes for fair weather and 530 minutes for adverse weather during the Apple and Pork Festival remain valid (see Table 2.3.5).

ATTACHMENTS:

None

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (k)

(NOTE: RAIs (k) through (v) relate to Section III. "Early Site Permits - Major Features of the Emergency Plans" in Supplement 2 to NUREG-0654.)

k) Regarding Section 1.3, "Reception Centers," in the 1993 ETE Study, Figure 2.3-1, "Evacuation Routes and Congregate Care Centers," in the Emergency Plan for the ESP application, and Map C, "Clinton-Shelter and Evacuation Map," in *The Illinois Plan for Radiological Accidents*, Volume VIII, identify which of these items correctly specifies the location of the Registration and Congregate Care Centers.

EGC RAI ID: R17-11

EGC RESPONSE:

The three items listed: Section 1.3 of the 1993 ETE, Map C of the IPRA Vol. VIII, and Figure 2.3-1 of the EGC ESP Emergency Plan, all correctly specify locations for evacuated persons to gather, but each use different terminology. The following table shows the differences in terminology used.

Source	Terminology
1993 ETE Study	Reception Centers
Map C of IPRA Volume VIII	Registration and Congregate Care Shelters
Figure 2.3-1 of the EGC ESP Emergency Plan	Registration and Congregate Care Centers

Due to the difference in terminology, the EGC ESP Emergency Plan will be revised to reflect the terminology used in IPRA Vol. VIII. For example, *Registration and Congregate Care Centers*, will be revised to *Registration and Congregate Care Shelters*.

Additionally, each source specifies evacuation locations that comply with the other sources except for one discrepancy. For example, the 1993 ETE Study directs evacuation people to reception centers located in Bloomington (North), Champaign (East), Decatur (South), and Lincoln (West). Map C of IPRA Volume VIII shows congregate care shelters in each of these cities. However, Figure 2.3-1 of the EGC ESP Emergency Plan only labels the following registration and congregate care centers:

- ISU Horton Field House (located in Bloomington),
- Parkland College (located in Champaign), and
- Steven Decatur Middle School (located in Decatur).

Therefore Figure 2.3-1 of the EGC ESP Emergency Plan will be revised to include the Lincoln Community High School as the registration and congregate care shelter for the city of Lincoln (West of EGC ESP Site).

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

ASSOCIATED EGC ESP APPLICATION REVISIONS:

The EGC ESP Emergency Plan will be revised to reflect the terminology used in IPRA Vol. VIII. For example, *Registration and Congregate Care Centers*, will be revised to *Registration and Congregate Care Shelters* in Section 2.3.1, in the title of Figure 2.3-1, and in Section 10.1.8.1.

Figure 2.3-1 of the EGC ESP Emergency Plan will be revised to include the Lincoln Community High School as the registration and congregate care shelter for the city of Lincoln (West of EGC ESP Site).

ATTACHMENTS:

RAI 13.3-20, Attachment D (Revised EGC ESP EP Figure 2.3-1)

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (I)

I) Explain the assumption of an automobile occupancy factor of 60 students per bus and 40 residents per bus for special facility populations. Provide specific information regarding whether vans or ambulances will be needed in addition to the buses. If vans and ambulances are needed, provide information on whether they are included in the vehicle estimate.

EGC RAI ID: R17-12

EGC RESPONSE:

The values of 60 students per bus for schools and 40 persons per bus for health care facilities were assigned based on information provided by the county agencies. The use of buses versus vans is primarily a logistical issue, since one bus is (for traffic purposes) equivalent to 4 autos, while a van, with roughly half the capacity of a bus, is equivalent to 2 autos.

For health care facilities (hospital and nursing home), one ambulance (or wheel-chair van) is assigned for every two non-ambulatory patients or residents. These vehicles have been included in the analysis for special facilities. (See Attachment A.)

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

RAI No. 13.3-20 - Attachment A

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (m)

m) Provide information on whether pass through traffic affects the roadway capacity and the ETE within the plume exposure pathway EPZ evacuation routes.

EGC RAI ID: R17-13

EGC RESPONSE:

The NETVAC simulations do not include any "background" or "pass through" traffic. At the start of the simulation, the network is free of traffic. It was assumed that access control would prevent through traffic from entering the EPZ during the evacuation.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (n)

n) Explain why the NETVAC model input files in Appendix 3 assign Area Types identified as '4' or Residential for the entire plume exposure pathway EPZ.

EGC RAI ID: R17-14

EGC RESPONSE:

Most of the EPZ is rural or residential. Three of the four area types (central business district, fringe area, outlying business district) are characteristic of larger cities or towns. If a roadway is used predominantly by through traffic, "residential" is the appropriate classification for the link, even if the road traverses a business district. The links and intersections in the center of Clinton, the largest city or town in the EPZ (population 7,485), are not considered to comprise a "central business district".

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (o)

o) Discuss the roadway characteristics, traffic control measures and area types that support the NETVAC model runs.

EGC RAI ID: R17-15

EGC RESPONSE:

No new NETVAC model runs were made for the ESP submittal. The roadway characteristics and area types used in the 1993 ETE study are documented in the 1993 study report (and in Attachment C). As explained in Section 2.4, the CPS ETE performed in 1993 was determined to be valid for current conditions. The NETVAC runs were made with existing (normal) traffic controls in effect. (See response to RAI 13.3-20 (g) for additional discussion relating to traffic control measures.)

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

RAI No. 13.3-20 - Attachment C

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (p)

p) Provide the assumptions regarding hotel/motel population estimate of 39 people per day.

EGC RAI ID: R17-16

EGC RESPONSE:

Differences between the population estimates for hotels and motels in Table 2.3-2 and those from the 1993 ETE study reflect different assumptions relating to the number of occupied rooms, and the number of guests per room. The numbers in Table 2.3-2 (38 to 42 people) are based on average numbers of staff and guests, as identified by the transient facilities. According to facility websites, Sunset Inn & Suites ("Days Inn" in 1992) has 43 rooms; Town & Country Motel has 26 rooms; and Wye Motel has 25 rooms.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (q)

q) Provide a reference for the community college enrollment.

EGC RAI ID: R17-17

EGC RESPONSE:

The population estimates for Richland Community College Extension in Clinton were based on information on numbers of classes and class size provided by the college. The college provides up to 15 classes in the winter and spring, and 6 classes in the summer. Each class has up to 15 students.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (r)

r) Provide trip generation times for the migrant worker population and the transport-dependent population. In addition, discuss the availability of buses, drivers and the process for mobilizing these populations during an evacuation. Discuss whether evacuations can occur in a single trip or if return trips are necessary.

EGC RAI ID: R17-18

EGC RESPONSE:

The migrant worker population (estimated at 65 persons) was not included in the 1993 ETE study. According to the DeWitt County ESDA, most migrant workers are transported by bus. The buses generally remain on-site with the workers, and would be available for an evacuation.

For the 1993 ETE study, the transport-dependent resident population was assigned the same trip generation time distribution as the remainder of the resident population. According to the DeWitt County ESDA, buses will be used to evacuate the transport-dependent residential population in the city of Clinton. Adequate buses and drivers are available to accomplish the evacuation of this population in a single trip, but return trips might be necessary if additional people arrive at pickup locations after buses have departed.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (s)

s) Explain why the automobile occupancy rate is assumed to be different for Clinton Power Station than other factories.

EGC RAI ID: R17-19

EGC RESPONSE:

Site-specific information on automobile occupancy was available for Clinton Power Station, but was not readily available for other employers. In the absence of site-specific information, a conservative default value of one person per vehicle was used for estimating ETEs.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (t)

t) Provide information on the automobile occupancy rate for migrant workers. Are these workers considered transport dependent? Provide trip generation times for these workers.

EGC RAI ID: R17-20

EGC RESPONSE:

The migrant worker population (estimated at 65 persons) was not included in the 1993 ETE study. The county agencies do not consider these workers transport-dependent. If they were included in NETVAC analysis, the standard workforce mobilization time (30 to 60 minutes) would apply to these workers.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

None

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (u)

u) Provide on-road travel and delay times, as well as the estimated number of cars evacuating, for each segment.

EGC RAI ID: R17-21

EGC RESPONSE:

Detailed listings of NETVAC output for two evacuation scenarios (Winter Day Adverse Weather and Summer Weekday Fair Weather) are provided in Attachment C. These listings indicate the queue length and flow ("departures") by time step for each link in the roadway network. The departures for Exit Nodes indicate the number of vehicles leaving the EPZ during each time step.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

RAI No. 13.3-20 - Attachment C

U.S. Nuclear Regulatory Commission

January 24, 2005

Enclosure

NRC Letter Dated: 12/10/2004

NRC RAI No. 13.3-20 (v)

v) Since the additive reporting format for time estimates when probability distributions are used is not included in the 1993 ETE Study, provide the percentage of the population as a function of time.

EGC RAI ID: R17-22

EGC RESPONSE:

A graph displaying the number of vehicles evacuating as a function of time for the Winter Day Adverse Weather scenario is provided as Figure C-1 in Attachment C.

ASSOCIATED EGC ESP APPLICATION REVISIONS:

None

ATTACHMENTS:

RAI No. 13.3-20 - Attachment C

Analysis of Special Facility Evacuation Times

Evacuation time estimates were developed for individual special facilities. Departure times for individual facilities were estimated based on information provided by the DeWitt County Emergency Services Disaster Agency (ESDA), the Clinton Unit 15 School District, and Dr. John Warner Hospital. The NETVAC results from the 1993 study were used to estimate delays due to local traffic congestion along the primary route evacuation route leading from each facility out of the EPZ. NETVAC results were reviewed for the applicable “worst-case” evacuation scenario (Winter Day for schools, Summer Weekday for the jail, hospital and nursing home). The evacuation time estimates for each facility are summarized in Table A-1.

The DeLand schools are able to evacuate quickly, because the local district has adequate buses to evacuate the two schools located inside the EPZ. The Clinton Unit school district has 27 buses. In order to evacuate all of the public schools in Clinton, additional buses from outside the district will be required. As bus drivers report for an evacuation, buses would be allocated first to the Webster and Douglas elementary schools, followed by Lincoln and Washington elementary schools. The remaining local buses would be used to evacuate the County Jail, and to begin evacuating Clinton High School and Junior HS. Buses from outside the district would be used to evacuate the remaining students at Clinton High School and Junior HS, Clinton Christian Academy, plus Crestview Nursing Home, Warner Hospital and any transport-dependent residents. The two buses needed to evacuate Clinton Christian Academy can be obtained from communities just outside of the EPZ (Heyworth, Farmer City). For the remaining facilities, buses will come from as far away as Decatur, 22 miles distance (30 to 40 minutes travel time) from Clinton.

Ambulances and wheel-chair vans will be needed to evacuate non-ambulatory patients/residents from the hospital and nursing home. There are three ambulances available locally in Clinton. Additional vehicles will be obtained via “mutual aid” agreements with facilities outside of the EPZ. Again, some of these vehicles will come from as far away as Decatur, 22 miles distance (30 to 40 minutes travel time) from Clinton.

For adverse weather conditions, local congestion (queuing and spillback conditions) is predicted by NETVAC along the evacuation routes serving Douglas and Webster schools and the DeWitt County Jail. No congestion was predicted during adverse weather along routes serving the other special facilities, and no significant traffic congestion was predicted along the routes serving any of the facilities during fair weather.

Estimated evacuation times for special facilities range from 78 to 113 minutes, during normal weather, and from 79 to 177 minutes for adverse weather. The DeLand schools have the shortest evacuation times, while the DeWitt County Jail has the longest evacuation times. All of the special facility evacuation times are shorter than the corresponding ETEs for the general public.

Table A-1
Evacuation Time Estimates for Special Facilities in EPZ for Clinton Station

Schools	DeLand Elementary and Middle Schools	Douglas Elementary	Webster Elementary	Clinton Junior High
Entry node	58	38	908	34**
Staff	11	16	19	41
Students	147	253	255	467
Buses				
Total required	3	5	5	8
Transportation resources				
Local District	3	5	5	2
Outside of EPZ				6
Notification Time (minutes)	15	15	15	15
Mobilization Time for staff, students	15	15	15	15
Mobilization time for local buses, drivers (min.)	60	60	60	60
Additional Buses				
Mobilization time for buses, drivers (min.)	N/A	N/A	N/A	60
Travel time to schools				30-40
Total mobilization time				90-100
Facility Evacuation Time				
Total elapsed time to depart	75	75	75	105-115
Travel time out of EPZ (min.)				
Fair weather	3	8	8	5
Adverse weather	4	57*	42*	7
Total evacuation time (min.)				
Fair weather	78	83	83	110
Adverse weather	79	132*	117*	122
General public evacuation time	Sub-Areas 1,4	Sub-Areas 1,7	Sub-Areas 1,7	Sub-Areas 1,7
Fair weather	185	185	185	185
Adverse weather	205	240	240	240

* travel time estimates for Douglas, Webster include estimated delay due to local congestion

** locations of Clinton High School and Junior High School have changed since the 1993 study

Table A-1 (continued)

Schools	Lincoln, Washington Elementary Schools	Clinton Christian Academy	Clinton High School
Entry node	907	40	39**
Staff	33	8	53
Students	546	100	738
Buses			
Total required	10	2	13
Source of buses			
Local District	10	N/A	2
Outside of EPZ		2	11
Notification Time (minutes)	15	15	15
Mobilization Time for staff, students	15	15	15
Mobilization time for local buses, drivers (min.)	60	N/A	60
Additional Buses			
Mobilization time for buses, drivers (min.)	N/A	60	60
Travel time to schools		15-20	30-40
Total mobilization time		75-80	90-100
Facility Evacuation Time			
Total elapsed time to depart	75	90-95	75-115
Travel time out of EPZ (min.)			
Fair weather	5	5	5
Adverse weather	7	7	7
Total evacuation time (min.)			
Fair weather	80	100	110
Adverse weather	82	102	122
General public evacuation time	Sub-Areas 1,7	Sub-Areas 1,7	Sub-Areas 1,7
Fair weather	185	185	185
Adverse weather	240	240	240

Table A-1 (concluded)

Special Facility	DeWitt County Jail	Dr. John Warner Hospital	Crestview Nursing Home
Entry node	906	40	47
Staff	14	175	60
Patients or Inmates	54	43	103
Buses			
Bus or Van - total required	3	1	2
Local	3	0	0
Ambulance - total required		4	8
Local		2	0
Notification Time (minutes)	15	15	15
Mobilization Time for patients	90	30-60	30-60
Mobilization time for local drivers (min.)	15	5-10	N/A
Additional Vehicles			
Mobilization time (min.)	N/A	15-30	15
Travel time to facility		15-40	30-40
Total mobilization time		70	55
Facility Evacuation Time			
Total elapsed time to depart	105	85	75
Travel time out of EPZ (min.)			
Fair weather	8	8	8
Adverse weather	72*	12	12
Total evacuation time (min.)			
Fair weather	113	93	83
Adverse weather	177*	97	87
General public evacuation time	Sub-Areas 1,7	Sub-Areas 1,7	Sub-Areas 1,7
Fair weather	185	185	185
Adverse weather	240	240	240

Transport- Dependent Population

The estimated number of transport-dependent households by Sub-Area is summarized in Table B-1. The number of transport-dependent households in the EPZ is 302; most of these are located in the city of Clinton (in Sub-Area 7). The 2000 Census (SF-3) tabulates the number of vehicles per household; transport-dependent households were estimated based on the reported number of occupied households with no vehicles. Census data at Block Group level on average household size and vehicles per household were used to estimate values for each Sub-Area. The permanent population in the EPZ by Sub-Area was determined by Illinois Department of Nuclear Safety (IDNS) from 2000 Census data. This population (based on the geographic boundaries of the EPZ) is higher than the value of 12,358 reported in Section 2.3.2 of the Emergency Plan. The Emergency Plan value represents the population residing inside the 10-mile radius; several of the Sub-Areas extend outside of the 10-mile radius and contain additional population. The 1990 and 2000 population by Sub-Area is compared in Table B-2.

Table B-1. Estimates of Transport-Dependent Population in Clinton Station EPZ

	Permanent Population	Households	
		Auto-owning	Transport Dependent
Sub-Area 1	1,662	626	13
Sub-Area 2	248	93	2
Sub-Area 3	512	193	4
Sub-Area 4	243	92	2
Sub-Area 5	265	100	2
Sub-Area 6	1,371	517	11
Sub-Area 7	7,926	2,712	259
Sub-Area 8	1,041	392	8
Total in EPZ	13,268	4,725	302

Based on 2000 Census data (SF-1 and SF-3)

Table B-2. Change in Sub-area Populations for Clinton Station EPZ

	2000 Population	1990 Population
Sub-Area 1	1,662	1,441
Sub-Area 2	248	233
Sub-Area 3	512	429
Sub-Area 4	243	200
Sub-Area 5	265	207
Sub-Area 6	1,371	782
Sub-Area 7	7,926	8,081
Sub-Area 8	1,041	1,031
Total in EPZ	13,268	12,404

Detailed NETVAC Output for Selected Scenarios

A copy of the detailed output of NETVAC-predicted traffic flow and queue length by time step for each link in the roadway network is provided for two cases: Winter Day Adverse Weather and Summer Weekday Fair Weather. For the Winter Day Adverse Weather case, the predicted rate of vehicles departing from the EPZ is shown in Figure C-1.

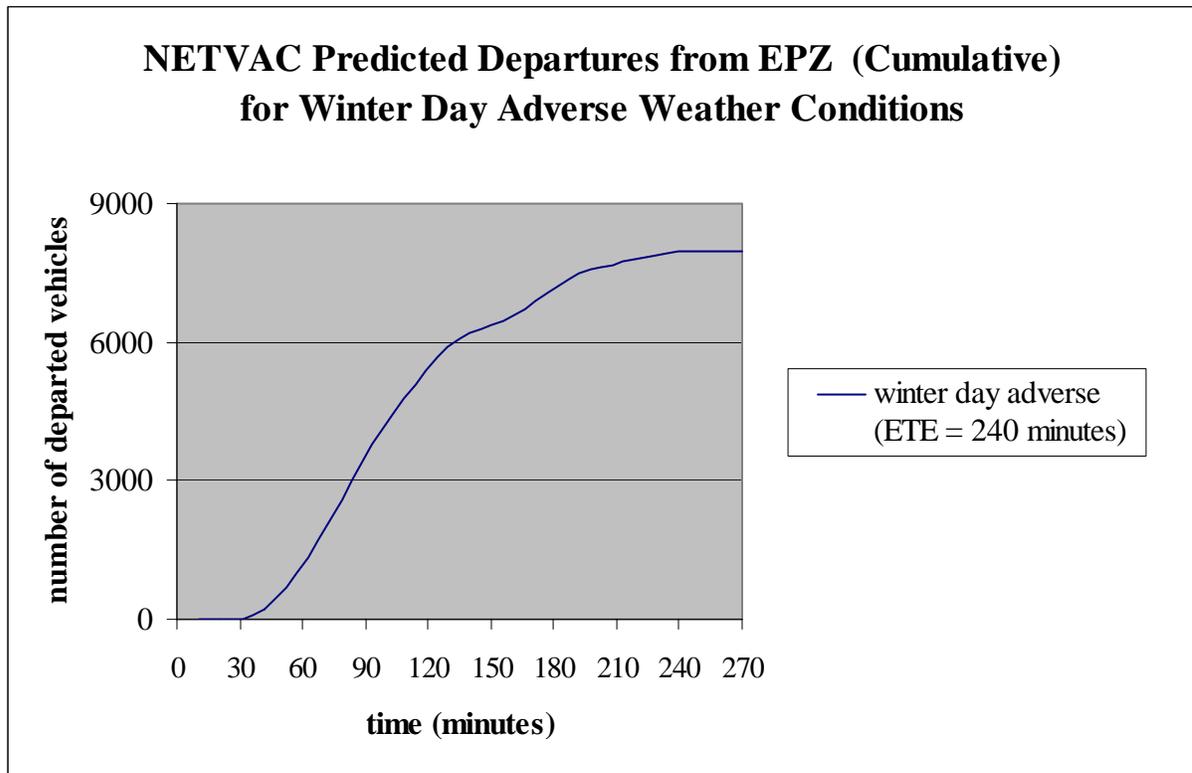
The discussion of roadway characteristics from Appendix 3 of the 1993 ETE study report is also reproduced here. This discussion explains the network data listing in the NETVAC output.

The detailed output for the Winter Day Adverse Weather simulation begins with the "NETWORK LISTING" of roadway characteristics for each of the 113 links in the roadway network, and then lists the number of vehicles leaving each link ("DEPT") and number of vehicles waiting in a queue ("QUEUE") for each time step in the simulation. The time step is 10.4 minutes for the Winter Day simulation. Nodes numbering in the 800's exit the roadway network. The roadway links that lead to exit nodes are summarized below

The detailed output for the Summer Weekday Fair Weather simulation is also provided, however the duplicate network listing (identical to the winter case) is not included. The time step for the Summer Weekday simulation is 6.2 minutes.

Exit Node	Link Number
801	68
802	11
803	83
804	73
805	86
806	71
807	72
808	85
809	35
810	12
811	106
812	103
813	2
814	70
815	69

Figure C-1. Predicted Rate of Vehicles Leaving the EPZ for Winter Day Adverse Weather



EXPLANATION OF ROADWAY NETWORK LISTING
(from Appendix C, 1993 ETE Study Report)

ROADWAY NETWORK LISTING AND CAPACITIES

The following pages include a description of the highway network used in the NETVAC evacuation simulation model. These pages include a computer printout of the network characteristics and a key for interpreting the data in the network listing. The listing includes both highway geometric descriptions and highway capacity data for each link in the network.

Key to NETVAC Computer Printout

LINK =	Link identification number
FROM =	Upstream node number (A-node) for associated link
TO =	Downstream node number (B-node) for associated link
LEN =	Link length in feet (A-node to B-node)
AW =	Approach width
LW =	Lane width
SW =	Lateral clearance; distance from edge of travel-way to obstructions along link midblock
L =	Number of lanes in direction of travel
PR =	Priority of movement along link, in reference to movement along intersecting links. Dominant or major link approaches are classified as Priority 1. Secondary approaches (i.e., those link approaches controlled by stop signs, yield signs, etc.) are generally classified as Priority 2.
LT =	Lane type, classified as follows: 1-One-way, no parking 2-One-way, parking on one side 3-One-way, parking on two sides 4-Two-way, no parking 5-Two-way, with parking 6-Rural divided highway, no parking 7-Rural undivided highway, no parking 8-Freeways and expressways

AT =	Area type, classified as follows: 1-Central business district 2-Fringe 3-Outer business district 4-Residential
PK =	T-Parking along link permitted F-Parking along link prohibited
SPD =	Free-flow speed over link
JAM =	Jam density - relative measure of link's carrying capacity
PRF =	User preference or movement along each outbound link. Preferences are initially assigned based on free-flow conditions. Actual route assignments are calculated by the program, considering the assigned preferences as well as speed, density, and capacity relationships.
FCAP =	Link capacity
STR, SPLT, CAP =	Identifies destination (upstream node) of the right-turn movement from downstream node, green time allocation, and associated intersection capacity
RGT, SPLT, CAP =	Identifies destination (upstream node) of the right-turn movement from downstream node; the exclusive right-turn green time, if applicable; and associated special turning lane capacity, if applicable
LFT, SPLT, CAP =	Identifies destination (upstream node) of the left-turn movement from downstream node; the exclusive left-turn green time, if applicable; and associated special turn lane capacity, if applicable

DIAG, SPLT,
CAP =

Identifies destination (upstream node) of the diagonal movement from downstream node; the exclusive diagonal-turn green time, if applicable; and associated special turn lane capacity, if applicable

FLOW =

Used in special cases for designating network flows

NETVAC OUTPUT – WINTER DAY ADVERSE WEATHER
(March 1993)

NETVAC2-PC VERSION-9/5/91
 Clinton Power Station/Winter Day/Adverse Weather
 Run Date: 3/22/93

ECHO LISTING OF NETWORK

1:	1	55	12000.	12.	12.	6.	2	1	7	455.	0.	.95	814	.00	0	.00	0	.00	0	.00	0	.00
2:	1	813	11900.	10.	10.	6.	1	1	7	440.	0.	.05	0	.00	0	.00	0	.00	0	.00	0	.00
3:	2	1	4800.	12.	12.	4.	2	1	7	450.	0.	1.00	55	.00	0	.00	0	.00	0	.00	813	.00
4:	3	2	1600.	10.	10.	6.	1	2	5	425.	0.	1.00	0	.00	0	.00	0	.00	0	.00	1	.00
5:	5	3	2600.	11.	11.	6.	1	1	7	425.	0.	1.00	0	.00	0	.00	0	.00	0	.00	2	.00
6:	6	5	26400.	10.	10.	6.	1	1	7	450.	0.	.05	3	.00	0	.00	0	.00	0	.00	0	.00
7:	6	54	21120.	10.	10.	6.	1	1	7	440.	0.	.95	815	.00	0	.00	0	.00	0	.00	0	.00
8:	7	8	10560.	12.	11.	6.	1	1	7	455.	0.	1.00	9	.00	0	.00	53	.00	0	.00	0	.00
9:	8	9	8400.	12.	11.	3.	1	1	7	455.	0.	.95	802	.00	0	.00	0	.00	0	.00	0	.00
10:	8	53	21120.	10.	10.	6.	1	1	7	440.	0.	.05	801	.00	0	.00	0	.00	0	.00	0	.00
11:	9	802	10560.	10.	10.	6.	1	1	7	455.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
12:	10	810	5000.	10.	10.	6.	1	1	7	450.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
13:	11	51	2900.	12.	12.	6.	1	1	7	450.	0.	1.00	38	.00	0	.00	0	.00	0	.00	0	.00
14:	11	12	9000.	10.	10.	6.	1	1	7	440.	0.	1.00	0	.00	0	.00	0	.00	0	.00	6	.00
15:	12	6	11400.	10.	10.	6.	1	1	7	440.	0.	1.00	54	.00	0	.00	5	.00	0	.00	0	.00
16:	13	15	11100.	12.	12.	6.	1	1	7	450.	0.	1.00	16	.00	0	.00	7	.00	0	.00	0	.00
17:	14	15	4000.	12.	12.	6.	1	2	7	430.	0.	1.00	7	.00	16	.00	0	.00	0	.00	0	.00
18:	14	60	8400.	12.	12.	6.	1	1	7	445.	0.	.95	59	.00	0	.00	50	.00	0	.00	0	.00
19:	15	16	1300.	12.	12.	6.	1	1	7	455.	0.	1.00	17	.00	0	.00	0	.00	0	.00	0	.00
20:	15	7	11900.	9.	9.	6.	1	1	7	430.	0.	1.00	0	.00	8	.00	0	.00	0	.00	0	.00
21:	16	17	12700.	11.	11.	6.	1	1	7	455.	0.	1.00	64	.00	0	.00	8	.00	0	.00	0	.00
22:	17	8	5300.	11.	11.	6.	1	1	7	445.	0.	.05	53	.00	0	.00	0	.00	0	.00	0	.00
23:	17	64	7900.	12.	12.	6.	1	1	7	455.	0.	.95	9	.00	0	.00	0	.00	0	.00	0	.00
24:	18	48	6600.	12.	12.	6.	1	1	7	445.	0.	.05	0	.00	24	.00	26	.00	0	.00	0	.00
25:	18	69	6000.	12.	12.	6.	1	1	7	450.	0.	.95	0	.00	0	.00	0	.00	0	.00	42	.00
26:	19	20	10560.	14.	14.	6.	1	1	7	450.	0.	.05	21	.00	0	.00	0	.00	0	.00	0	.00
27:	19	27	10560.	10.	10.	6.	1	2	7	445.	0.	.95	57	.00	0	.00	28	.00	0	.00	0	.00
28:	19	63	10560.	14.	14.	6.	1	1	7	450.	0.	1.00	62	.00	0	.00	0	.00	0	.00	0	.00
29:	20	21	10560.	14.	14.	6.	1	1	7	450.	0.	1.00	58	.00	28	.00	0	.00	0	.00	0	.00
30:	21	28	10560.	10.	10.	6.	1	1	7	450.	0.	.50	56	.00	0	.00	66	.00	0	.00	0	.00
31:	21	58	15840.	14.	14.	6.	1	1	7	450.	0.	.50	804	.00	0	.00	0	.00	0	.00	0	.00
32:	22	23	2100.	12.	12.	6.	1	1	7	455.	0.	1.00	70	.00	0	.00	0	.00	0	.00	0	.00
33:	23	70	1400.	12.	12.	6.	1	1	7	455.	0.	1.00	0	.00	0	.00	25	.00	0	.00	0	.00
34:	24	23	1600.	12.	12.	6.	1	2	7	430.	0.	1.00	0	.00	0	.00	0	.00	0	.00	70	.00

Clinton Power Station/Winter Day/Adverse Weather

ECHO LISTING OF NETWORK

35:	25	809	7920.	12.	12.	6.	2	1	7	455.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
36:	26	25	15000.	10.	10.	6.	1	2	7	445.	0.	.05	0	.00	0	.00	0	.00	0	.00	809	.00
37:	26	67	15840.	10.	10.	6.	1	1	7	445.	0.	.95	808	.00	0	.00	0	.00	0	.00	0	.00
38:	27	28	21120.	10.	10.	6.	1	2	7	445.	0.	.05	66	.00	56	.00	0	.00	0	.00	0	.00
39:	27	57	15840.	10.	10.	6.	1	1	7	445.	0.	.95	807	.00	0	.00	0	.00	0	.00	0	.00
40:	28	66	21120.	10.	10.	6.	1	1	7	450.	0.	.50	0	.00	0	.00	68	.00	0	.00	0	.00
41:	28	56	15840.	10.	10.	6.	1	1	7	450.	0.	.50	806	.00	0	.00	0	.00	0	.00	0	.00
42:	30	29	1500.	10.	10.	1.	1	1	7	425.	0.	.95	72	.00	0	.00	0	.00	0	.00	0	.00
43:	30	46	600.	9.	9.	5.	1	1	7	425.	0.	.05	47	.00	0	.00	0	.00	0	.00	0	.00
44:	32	33	1300.	14.	12.	4.	1	1	7	455.	0.	1.00	71	.00	0	.00	0	.00	0	.00	0	.00
45:	33	71	3400.	12.	12.	4.	1	1	7	455.	0.	1.00	0	.00	2	2.00	0	.00	0	.00	0	.00
46:	35	30	1800.	10.	10.	4.	1	2	7	425.	0.	.05	46	.00	0	.00	29	.00	0	.00	0	.00
47:	35	34	1600.	10.	8.	4.	1	2	7	425.	0.	.95	0	.00	0	.00	0	.00	0	.00	73	.00
48:	38	69	3600.	11.	11.	6.	1	1	7	455.	0.	1.00	42	.00	0	.00	0	.00	0	.00	0	.00
49:	39	34	1200.	12.	12.	4.	1	1	7	455.	0.	.50	73	.00	0	.00	0	.00	0	.00	0	.00
50:	40	39	1200.	11.	10.	0.	1	1	4	430.	0.	.10	74	.00	0	.00	0	.00	0	.00	34	.00
51:	40	44	2900.	12.	12.	4.	1	1	7	445.	0.	.45	22	.00	0	.00	0	.00	0	.00	75	.00
52:	41	40	800.	15.	11.	0.	1	1	4	430.	0.	1.00	39	.50	0	.00	44	.50	0	.00	0	.00
53:	42	24	4000.	10.	10.	3.	1	2	7	425.	0.	.05	0	.00	0	.00	0	.00	0	.00	23	.00
54:	42	41	600.	11.	11.	4.	1	1	7	430.	0.	.95	40	.00	0	.00	0	.00	0	.00	0	.00
55:	44	22	1300.	12.	12.	6.	1	1	7	455.	0.	.95	23	.00	0	.00	0	.00	0	.00	0	.00
56:	46	47	1200.	10.	10.	4.	1	1	7	430.	0.	1.00	0	.00	0	.00	0	.00	0	.00	33	.00
57:	47	33	2300.	8.	8.	3.	1	2	7	425.	0.	1.00	0	.00	0	.00	0	.00	0	.00	71	.00
58:	48	18	6600.	12.	12.	6.	1	2	7	445.	0.	.45	69	.00	0	.00	0	.00	0	.00	0	.00
59:	48	24	10600.	12.	10.	6.	1	1	7	445.	0.	.05	23	.00	0	.00	0	.00	0	.00	0	.00
60:	48	26	11600.	10.	10.	6.	1	1	7	445.	0.	.50	67	.00	25	.00	0	.00	0	.00	0	.00
61:	49	11	10300.	12.	12.	6.	1	1	7	450.	0.	.45	51	.00	0	.00	0	.00	0	.00	0	.00
62:	49	12	10000.	10.	10.	6.	1	1	7	430.	0.	.50	6	.00	0	.00	0	.00	0	.00	0	.00
63:	49	13	1600.	12.	12.	6.	1	1	7	450.	0.	.05	15	.00	0	.00	0	.00	0	.00	0	.00
64:	50	65	21120.	9.	9.	6.	1	1	7	455.	0.	.95	803	.00	0	.00	0	.00	0	.00	0	.00
65:	50	21	10560.	12.	12.	6.	1	1	7	455.	0.	.05	28	.00	0	.00	58	.00	0	.00	0	.00
66:	51	38	20000.	12.	12.	6.	1	1	7	455.	0.	1.00	69	.00	0	.00	0	.00	0	.00	0	.00
67:	51	11	2900.	12.	12.	6.	1	1	7	450.	0.	1.00	0	.00	0	.00	12	.00	0	.00	0	.00
68:	53	801	10560.	10.	10.	6.	1	1	7	440.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
69:	54	815	12000.	10.	10.	6.	1	1	7	440.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
70:	55	814	6600.	12.	12.	6.	2	1	7	455.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
71:	56	806	5280.	10.	10.	6.	1	1	7	450.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
72:	57	807	10560.	10.	10.	6.	1	1	7	445.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00

Clinton Power Station/Winter Day/Adverse Weather

ECHO LISTING OF NETWORK

73:	58	804	10560.	14.	14.	6.	1	1	7	450.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
74:	59	60	4200.	12.	12.	6.	1	1	7	445.	0.	1.00	0	.00	50	.00	0	.00	0	.00	0	.00
75:	59	20	5280.	12.	12.	6.	1	1	7	445.	0.	1.00	0	.00	0	.00	21	.00	0	.00	0	.00
76:	60	50	11100.	9.	9.	6.	1	2	7	440.	0.	.50	65	.00	21	.00	0	.00	0	.00	0	.00
77:	60	59	4200.	12.	12.	6.	1	1	7	445.	0.	.50	20	.00	0	.00	0	.00	0	.00	0	.00
78:	61	13	4000.	12.	10.	6.	1	1	7	440.	0.	.17	0	.00	15	.00	0	.00	0	.00	0	.00
79:	61	14	10600.	10.	10.	6.	1	2	7	440.	0.	.83	0	.00	60	.00	15	.00	0	.00	0	.00
80:	62	18	12400.	14.	14.	6.	1	1	7	450.	0.	1.00	69	.00	0	.00	48	.00	0	.00	0	.00
81:	63	62	10000.	14.	14.	6.	1	1	7	450.	0.	1.00	18	.00	0	.00	0	.00	0	.00	0	.00
82:	64	9	1600.	11.	10.	6.	1	1	7	455.	0.	1.00	802	.00	0	.00	0	.00	0	.00	0	.00
83:	65	803	7920.	9.	9.	6.	1	1	7	440.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
84:	66	68	2640.	10.	10.	6.	1	1	7	450.	0.	1.00	0	.00	0	.00	0	.00	0	.00	805	.00
85:	67	808	5280.	10.	10.	6.	1	1	7	445.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
86:	68	805	6600.	10.	10.	6.	1	1	7	450.	0.	1.00	0	.00	0	.00	0	.00	0	.00	0	.00
87:	69	42	1000.	12.	12.	6.	1	1	7	450.	0.	1.00	41	.00	0	.00	24	.00	0	.00	0	.00
88:	70	25	3900.	12.	12.	6.	2	1	7	455.	0.	1.00	809	.00	0	.00	0	.00	0	.00	0	.00
89:	71	2	16600.	12.	12.	4.	2	1	7	455.	0.	1.00	1	.00	0	.00	0	.00	0	.00	0	.00
90:	901	61	2100.	12.	12.	6.	1	1	4	430.	0.	.30	0	.00	0	.00	13	.00	14	.00	0	.00
91:	901	49	10560.	12.	12.	6.	2	1	4	430.	0.	.70	12	.00	0	.00	11	.00	13	.00	0	.00
92:	902	59	10600.	12.	12.	6.	1	1	7	430.	0.	.50	0	.00	0	.00	60	.00	0	.00	0	.00
93:	902	19	5300.	10.	10.	6.	1	1	7	430.	0.	.50	27	.00	0	.00	20	.00	0	.00	0	.00
94:	903	64	5800.	12.	12.	6.	1	1	7	430.	0.	1.00	0	.00	0	.00	0	.00	0	.00	9	.00
95:	904	63	2600.	12.	12.	6.	1	1	7	430.	0.	1.00	0	.00	0	.00	0	.00	0	.00	62	.00
96:	905	51	6900.	12.	12.	6.	1	1	7	430.	0.	.50	0	.00	0	.00	0	.00	0	.00	11	.00
97:	905	62	8200.	12.	12.	6.	1	1	7	430.	0.	.50	0	.00	0	.00	0	.00	0	.00	18	.00
98:	906	42	1400.	16.	11.	0.	1	2	5	425.	0.	1.00	24	.00	41	.00	0	.00	0	.00	0	.00
99:	907	35	1500.	21.	13.	1.	1	1	5	430.	0.	.50	34	.00	30	.00	0	.00	0	.00	0	.00
100:	907	40	1400.	15.	12.	0.	1	1	4	425.	0.	.50	44	.50	39	.00	0	.00	0	.00	0	.00
101:	908	32	600.	21.	14.	1.	1	2	5	430.	0.	1.00	33	.00	0	.00	0	.00	0	.00	0	.00
102:	29	72	2000.	10.	10.	1.	1	2	7	425.	0.	1.00	812	.00	0	.00	73	.00	0	.00	0	.00
103:	72	812	13840.	10.	10.	1.	1	1	7	425.	0.	.99	0	.00	0	.00	0	.00	0	.00	0	.00
104:	72	73	2000.	24.	12.	6.	2	1	7	455.	0.	.01	74	.00	811	2.00	0	.00	0	.00	0	.00
105:	34	73	1500.	12.	12.	6.	1	1	7	455.	0.	1.00	811	.00	0	.00	74	.00	0	.00	0	.00
106:	73	811	14340.	12.	12.	6.	1	1	7	455.	0.	.99	0	.00	0	.00	0	.00	0	.00	0	.00
107:	73	74	3000.	24.	12.	6.	2	1	7	455.	0.	.01	75	.00	10	2.00	0	.00	0	.00	0	.00
108:	39	74	3700.	10.	10.	6.	1	1	7	450.	0.	.50	10	.00	0	.00	75	.00	0	.00	0	.00
109:	74	10	3700.	10.	10.	6.	1	1	7	450.	0.	.99	810	.00	0	.00	0	.00	0	.00	0	.00
110:	74	75	3000.	24.	12.	6.	2	1	7	455.	0.	.01	70	.00	10	2.00	0	.00	0	.00	0	.00

Clinton Power Station/Winter Day/Adverse Weather

ECHO LISTING OF NETWORK

111:	75	70	5000.	24.	12.	6.	2	1	7	455.	0.	.01	25	.00	0	.00	0	.00	0	.00
112:	75	10	4500.	22.	9.	6.	1	2	7	440.	0.	.99	0	.00	0	.00	0	.00	810	.00
113:	44	75	5000.	12.	12.	6.	1	1	7	440.	0.	.05	10	.00	0	.00	70	.00	0	.00

Clinton Power Station/Winter Day/Adverse Weather

Run Date: 3/22/93

NETWORK LISTING

LINK	FRM	TO	LEN	AW	LW	SW	L	PR	LT	AT	PK	SPD	JAM	PRF	FCAP	STR	SPLT	CAP	RGT	SPLT	CAP	LFT	SPLT	CAP	DIAG	SPLT
1	1	55	12000.	12.	12.	6.	2	1	7	4	F	39.	163.	.95	1400.	814	.00	568.	0	.00	0.	0	.00	0.	0	.00
2		813	11900.	10.	10.	6.	1	1	7	4	F	28.	178.	.05	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
3	2	1	4800.	12.	12.	4.	2	1	7	4	F	35.	176.	1.00	1400.	55	.00	568.	0	.00	0.	0	.00	0.	813	.00
4	3	2	1600.	10.	10.	6.	1	2	5	4	T	18.	285.	1.00	1246.	0	.00	481.	0	.00	0.	0	.00	0.	1	.00
5	5	3	2600.	11.	11.	6.	1	1	7	4	F	18.	323.	1.00	1400.	0	.00	1058.	0	.00	0.	0	.00	0.	2	.00 1
6	6	5	26400.	10.	10.	6.	1	1	7	4	F	35.	142.	.05	1246.	3	.00	980.	0	.00	0.	0	.00	0.	0	.00
7		54	21120.	10.	10.	6.	1	1	7	4	F	28.	178.	.95	1246.	815	.00	980.	0	.00	0.	0	.00	0.	0	.00
8	7	8	10560.	12.	11.	6.	1	1	7	4	F	39.	147.	1.00	1400.	9	.00	1137.	0	.00	0.	53	.00	0.	0	.00
9	8	9	8400.	12.	11.	3.	1	1	7	4	F	39.	143.	.95	1372.	802	.00	1137.	0	.00	0.	0	.00	0.	0	.00
10		53	21120.	10.	10.	6.	1	1	7	4	F	28.	178.	.05	1246.	801	.00	980.	0	.00	0.	0	.00	0.	0	.00
11	9	802	10560.	10.	10.	6.	1	1	7	4	F	39.	129.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
12	10	810	5000.	10.	10.	6.	1	1	7	4	F	35.	142.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
13	11	51	2900.	12.	12.	6.	1	1	7	4	F	35.	179.	1.00	1400.	38	.00	1137.	0	.00	0.	0	.00	0.	0	.00
14		12	9000.	10.	10.	6.	1	1	7	4	F	28.	178.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	6	.00
15	12	6	11400.	10.	10.	6.	1	1	7	4	F	28.	178.	1.00	1246.	54	.00	980.	0	.00	0.	5	.00	0.	0	.00
16	13	15	11100.	12.	12.	6.	1	1	7	4	F	35.	179.	1.00	1400.	16	.00	1137.	0	.00	0.	7	.00	0.	0	.00
17	14	15	4000.	12.	12.	6.	1	2	7	4	F	21.	299.	1.00	1400.	7	.00	1137.	16	.00	0.	0	.00	0.	0	.00
18		60	8400.	12.	12.	6.	1	1	7	4	F	32.	199.	.95	1400.	59	.00	1137.	0	.00	0.	50	.00	0.	0	.00
19	15	16	1300.	12.	12.	6.	1	1	7	4	F	39.	163.	1.00	1400.	17	.00	1137.	0	.00	0.	0	.00	0.	0	.00
20		7	11900.	9.	9.	6.	1	1	7	4	F	21.	205.	1.00	1078.	0	.00	902.	8	.00	0.	0	.00	0.	0	.00
21	16	17	12700.	11.	11.	6.	1	1	7	4	F	39.	147.	1.00	1400.	64	.00	1058.	0	.00	0.	8	.00	0.	0	.00
22	17	8	5300.	11.	11.	6.	1	1	7	4	F	32.	180.	.05	1400.	53	.00	1058.	0	.00	0.	0	.00	0.	0	.00
23		64	7900.	12.	12.	6.	1	1	7	4	F	39.	163.	.95	1400.	9	.00	1137.	0	.00	0.	0	.00	0.	0	.00
24	18	48	6600.	12.	12.	6.	1	1	7	4	F	32.	199.	.05	1400.	0	.00	1137.	24	.00	0.	26	.00	0.	0	.00
25		69	6000.	12.	12.	6.	1	1	7	4	F	35.	179.	.95	1400.	0	.00	1137.	0	.00	0.	0	.00	0.	42	.00 1
26	19	20	10560.	14.	14.	6.	1	1	7	4	F	35.	214.	.05	1400.	21	.00	1294.	0	.00	0.	0	.00	0.	0	.00
27		27	10560.	10.	10.	6.	1	2	7	4	F	32.	158.	.95	1246.	57	.00	980.	0	.00	0.	28	.00	0.	0	.00
28		63	10560.	14.	14.	6.	1	1	7	4	F	35.	214.	1.00	1400.	62	.00	1294.	0	.00	0.	0	.00	0.	0	.00
29	20	21	10560.	14.	14.	6.	1	1	7	4	F	35.	214.	1.00	1400.	58	.00	1294.	28	.00	0.	0	.00	0.	0	.00
30	21	28	10560.	10.	10.	6.	1	1	7	4	F	35.	142.	.50	1246.	56	.00	980.	0	.00	0.	66	.00	0.	0	.00
31		58	15840.	14.	14.	6.	1	1	7	4	F	35.	214.	.50	1400.	804	.00	1294.	0	.00	0.	0	.00	0.	0	.00
32	22	23	2100.	12.	12.	6.	1	1	7	4	F	39.	163.	1.00	1400.	70	.00	1137.	0	.00	0.	0	.00	0.	0	.00
33	23	70	1400.	12.	12.	6.	1	1	7	4	F	39.	163.	1.00	1400.	0	.00	1137.	0	.00	0.	25	.00	0.	0	.00
34	24	23	1600.	12.	12.	6.	1	2	7	4	F	21.	299.	1.00	1400.	0	.00	1137.	0	.00	0.	0	.00	0.	70	.00 1
35	25	809	7920.	12.	12.	6.	2	1	7	4	F	39.	163.	1.00	1400.	0	.00	568.	0	.00	0.	0	.00	0.	0	.00
36	26	25	15000.	10.	10.	6.	1	2	7	4	F	32.	158.	.05	1246.	0	.00	980.	0	.00	0.	0	.00	0.	809	.00
37		67	15840.	10.	10.	6.	1	1	7	4	F	32.	158.	.95	1246.	808	.00	980.	0	.00	0.	0	.00	0.	0	.00

Clinton Power Station/Winter Day/Adverse Weather

NETWORK LISTING

LINK	FRM	TO	LEN	AW	LW	SW	L	PR	LT	AT	PK	SPD	JAM	PRF	FCAP	STR	SPLT	CAP	RGT	SPLT	CAP	LFT	SPLT	CAP	DIAG	SPLT
38	27	28	21120.	10.	10.	6.	1	2	7	4	F	32.	158.	.05	1246.	66	.00	980.	56	.00	0.	0	.00	0.	0	.00
39		57	15840.	10.	10.	6.	1	1	7	4	F	32.	158.	.95	1246.	807	.00	980.	0	.00	0.	0	.00	0.	0	.00
40	28	66	21120.	10.	10.	6.	1	1	7	4	F	35.	142.	.50	1246.	0	.00	980.	0	.00	0.	68	.00	0.	0	.00
41		56	15840.	10.	10.	6.	1	1	7	4	F	35.	142.	.50	1246.	806	.00	980.	0	.00	0.	0	.00	0.	0	.00
102	29	72	2000.	10.	10.	1.	1	2	7	4	F	18.	269.	1.00	1176.	812	.00	980.	0	.00	0.	73	.00	0.	0	.00
42	30	29	1500.	10.	10.	1.	1	1	7	4	F	18.	269.	.95	1176.	72	.00	980.	0	.00	0.	0	.00	0.	0	.00
43		46	600.	9.	9.	5.	1	1	7	4	F	18.	243.	.05	1064.	47	.00	902.	0	.00	0.	0	.00	0.	0	.00
44	32	33	1300.	14.	12.	4.	1	1	7	4	F	39.	160.	1.00	1400.	71	.00	1294.	0	.00	0.	0	.00	0.	0	.00
45	33	71	3400.	12.	12.	4.	1	1	7	4	F	39.	160.	1.00	1400.	0	.00	1137.	2	2.00	840.	0	.00	0.	0	.00
105	34	73	1500.	12.	12.	6.	1	1	7	4	F	39.	163.	1.00	1400.	811	.00	1137.	0	.00	0.	74	.00	0.	0	.00
46	35	30	1800.	10.	10.	4.	1	2	7	4	F	18.	278.	.05	1218.	46	.00	980.	0	.00	0.	29	.00	0.	0	.00
47		34	1600.	10.	8.	4.	1	2	7	4	F	18.	202.	.95	882.	0	.00	980.	0	.00	0.	0	.00	0.	73	.00
48	38	69	3600.	11.	11.	6.	1	1	7	4	F	39.	147.	1.00	1400.	42	.00	1058.	0	.00	0.	0	.00	0.	0	.00
49	39	34	1200.	12.	12.	4.	1	1	7	4	F	39.	160.	.50	1400.	73	.00	1137.	0	.00	0.	0	.00	0.	0	.00
108		74	3700.	10.	10.	6.	1	1	7	4	F	35.	142.	.50	1246.	10	.00	980.	0	.00	0.	75	.00	0.	0	.00
50	40	39	1200.	11.	10.	0.	1	1	4	4	F	21.	221.	.10	1162.	74	.00	783.	0	.00	0.	0	.00	0.	34	.00
51		44	2900.	12.	12.	4.	1	1	7	4	F	32.	196.	.45	1400.	22	.00	1137.	0	.00	0.	0	.00	0.	75	.00 1
52	41	40	800.	15.	11.	0.	1	1	4	4	F	21.	237.	1.00	1246.	39	.50	1116.	0	.00	0.	44	.50	840.	0	.00
53	42	24	4000.	10.	10.	3.	1	2	7	4	F	18.	275.	.05	1204.	0	.00	980.	0	.00	0.	0	.00	0.	23	.00
54		41	600.	11.	11.	4.	1	1	7	4	F	21.	264.	.95	1386.	40	.00	1058.	0	.00	0.	0	.00	0.	0	.00
55	44	22	1300.	12.	12.	6.	1	1	7	4	F	39.	163.	.95	1400.	23	.00	1137.	0	.00	0.	0	.00	0.	0	.00
113		75	5000.	12.	12.	6.	1	1	7	4	F	28.	224.	.05	1400.	10	.00	1137.	0	.00	0.	70	.00	0.	0	.00
56	46	47	1200.	10.	10.	4.	1	1	7	4	F	21.	232.	1.00	1218.	0	.00	980.	0	.00	0.	0	.00	0.	33	.00
57	47	33	2300.	8.	8.	3.	1	2	7	4	F	18.	198.	1.00	868.	0	.00	823.	0	.00	0.	0	.00	0.	71	.00
58	48	18	6600.	12.	12.	6.	1	2	7	4	F	32.	199.	.45	1400.	69	.00	1137.	0	.00	0.	0	.00	0.	0	.00
59		24	10600.	12.	10.	6.	1	1	7	4	F	32.	158.	.05	1246.	23	.00	1137.	0	.00	0.	0	.00	0.	0	.00
60		26	11600.	10.	10.	6.	1	1	7	4	F	32.	158.	.50	1246.	67	.00	980.	25	.00	0.	0	.00	0.	0	.00
61	49	11	10300.	12.	12.	6.	1	1	7	4	F	35.	179.	.45	1400.	51	.00	1137.	0	.00	0.	0	.00	0.	0	.00
62		12	10000.	10.	10.	6.	1	1	7	4	F	21.	237.	.50	1246.	6	.00	980.	0	.00	0.	0	.00	0.	0	.00
63		13	1600.	12.	12.	6.	1	1	7	4	F	35.	179.	.05	1400.	15	.00	1137.	0	.00	0.	0	.00	0.	0	.00
64	50	65	21120.	9.	9.	6.	1	1	7	4	F	39.	112.	.95	1078.	803	.00	902.	0	.00	0.	0	.00	0.	0	.00
65		21	10560.	12.	12.	6.	1	1	7	4	F	39.	163.	.05	1400.	28	.00	1137.	0	.00	0.	58	.00	0.	0	.00
66	51	38	20000.	12.	12.	6.	1	1	7	4	F	39.	163.	1.00	1400.	69	.00	1137.	0	.00	0.	0	.00	0.	0	.00
67		11	2900.	12.	12.	6.	1	1	7	4	F	35.	179.	1.00	1400.	0	.00	1137.	0	.00	0.	12	.00	0.	0	.00
68	53	801	10560.	10.	10.	6.	1	1	7	4	F	28.	178.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
69	54	815	12000.	10.	10.	6.	1	1	7	4	F	28.	178.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
70	55	814	6600.	12.	12.	6.	2	1	7	4	F	39.	163.	1.00	1400.	0	.00	568.	0	.00	0.	0	.00	0.	0	.00
71	56	806	5280.	10.	10.	6.	1	1	7	4	F	35.	142.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
72	57	807	10560.	10.	10.	6.	1	1	7	4	F	32.	158.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00

Clinton Power Station/Winter Day/Adverse Weather

NETWORK LISTING

LINK	FRM	TO	LEN	AW	LW	SW	L	PR	LT	AT	PK	SPD	JAM	PRF	FCAP	STR	SPLT	CAP	RGT	SPLT	CAP	LFT	SPLT	CAP	DIAG	SPLT
73	58	804	10560.	14.	14.	6.	1	1	7	4	F	35.	214.	1.00	1400.	0	.00	1294.	0	.00	0.	0	.00	0.	0	.00
74	59	60	4200.	12.	12.	6.	1	1	7	4	F	32.	199.	1.00	1400.	0	.00	1137.	50	.00	0.	0	.00	0.	0	.00
75		20	5280.	12.	12.	6.	1	1	7	4	F	32.	199.	1.00	1400.	0	.00	1137.	0	.00	0.	21	.00	0.	0	.00
76	60	50	11100.	9.	9.	6.	1	2	7	4	F	28.	154.	.50	1078.	65	.00	902.	21	.00	0.	0	.00	0.	0	.00
77		59	4200.	12.	12.	6.	1	1	7	4	F	32.	199.	.50	1400.	20	.00	1137.	0	.00	0.	0	.00	0.	0	.00
78	61	13	4000.	12.	10.	6.	1	1	7	4	F	28.	178.	.17	1246.	0	.00	1137.	15	.00	0.	0	.00	0.	0	.00
79		14	10600.	10.	10.	6.	1	2	7	4	F	28.	178.	.83	1246.	0	.00	980.	60	.00	0.	15	.00	0.	0	.00
80	62	18	12400.	14.	14.	6.	1	1	7	4	F	35.	214.	1.00	1400.	69	.00	1294.	0	.00	0.	48	.00	0.	0	.00
81	63	62	10000.	14.	14.	6.	1	1	7	4	F	35.	214.	1.00	1400.	18	.00	1294.	0	.00	0.	0	.00	0.	0	.00
82	64	9	1600.	11.	10.	6.	1	1	7	4	F	39.	129.	1.00	1246.	802	.00	1058.	0	.00	0.	0	.00	0.	0	.00
83	65	803	7920.	9.	9.	6.	1	1	7	4	F	28.	154.	1.00	1078.	0	.00	902.	0	.00	0.	0	.00	0.	0	.00
84	66	68	2640.	10.	10.	6.	1	1	7	4	F	35.	142.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	805	.00
85	67	808	5280.	10.	10.	6.	1	1	7	4	F	32.	158.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
86	68	805	6600.	10.	10.	6.	1	1	7	4	F	35.	142.	1.00	1246.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
87	69	42	1000.	12.	12.	6.	1	1	7	4	F	35.	179.	1.00	1400.	41	.00	1137.	0	.00	0.	24	.00	0.	0	.00
88	70	25	3900.	12.	12.	6.	2	1	7	4	F	39.	163.	1.00	1400.	809	.00	568.	0	.00	0.	0	.00	0.	0	.00
89	71	2	16600.	12.	12.	4.	2	1	7	4	F	39.	160.	1.00	1400.	1	.00	568.	0	.00	0.	0	.00	0.	0	.00
103	72	812	13840.	10.	10.	1.	1	1	7	4	F	18.	269.	.99	1176.	0	.00	980.	0	.00	0.	0	.00	0.	0	.00
104		73	2000.	24.	12.	6.	2	1	7	4	F	39.	163.	.01	1400.	74	.00	1073.	811	2.00	840.	0	.00	0.	0	.00
106	73	811	14340.	12.	12.	6.	1	1	7	4	F	39.	163.	.99	1400.	0	.00	1137.	0	.00	0.	0	.00	0.	0	.00
107		74	3000.	24.	12.	6.	2	1	7	4	F	39.	163.	.01	1400.	75	.00	1073.	10	2.00	840.	0	.00	0.	0	.00
109	74	10	3700.	10.	10.	6.	1	1	7	4	F	35.	142.	.99	1246.	810	.00	980.	0	.00	0.	0	.00	0.	0	.00
110		75	3000.	24.	12.	6.	2	1	7	4	F	39.	163.	.01	1400.	70	.00	1073.	10	2.00	840.	0	.00	0.	0	.00
111	75	70	5000.	24.	12.	6.	2	1	7	4	F	39.	163.	.01	1400.	25	.00	1073.	0	.00	0.	0	.00	0.	0	.00
112		10	4500.	22.	9.	6.	1	2	7	4	F	28.	154.	.99	1078.	0	.00	1400.	0	.00	0.	0	.00	0.	810	.00 1
90	901	61	2100.	12.	12.	6.	1	1	4	4	F	21.	267.	.30	1400.	0	.00	866.	0	.00	0.	13	.00	0.	14	.00
91		49	10560.	12.	12.	6.	2	1	4	4	F	21.	267.	.70	1400.	12	.00	433.	0	.00	0.	11	.00	0.	13	.00
92	902	59	10600.	12.	12.	6.	1	1	7	4	F	21.	299.	.50	1400.	0	.00	1137.	0	.00	0.	60	.00	0.	0	.00
93		19	5300.	10.	10.	6.	1	1	7	4	F	21.	237.	.50	1246.	27	.00	980.	0	.00	0.	20	.00	0.	0	.00
94	903	64	5800.	12.	12.	6.	1	1	7	4	F	21.	299.	1.00	1400.	0	.00	1137.	0	.00	0.	0	.00	0.	9	.00 1
95	904	63	2600.	12.	12.	6.	1	1	7	4	F	21.	299.	1.00	1400.	0	.00	1137.	0	.00	0.	0	.00	0.	62	.00 1
96	905	51	6900.	12.	12.	6.	1	1	7	4	F	21.	299.	.50	1400.	0	.00	1137.	0	.00	0.	0	.00	0.	11	.00 1
97		62	8200.	12.	12.	6.	1	1	7	4	F	21.	299.	.50	1400.	0	.00	1137.	0	.00	0.	0	.00	0.	18	.00 1
98	906	42	1400.	16.	11.	0.	1	2	5	4	T	18.	285.	1.00	1246.	24	.00	823.	41	.00	0.	0	.00	0.	0	.00
99	907	35	1500.	21.	13.	1.	1	1	5	4	T	21.	267.	.50	1400.	34	.00	1107.	30	.00	0.	0	.00	0.	0	.00
100		40	1400.	15.	12.	0.	1	1	4	4	F	18.	301.	.50	1316.	44	.50	1116.	39	.00	0.	0	.00	0.	0	.00
101	908	32	600.	21.	14.	1.	1	2	5	4	T	21.	280.	1.00	1400.	33	.00	1107.	0	.00	0.	0	.00	0.	0	.00

Clinton Power Station/Winter Day/Adverse Weather
Selected Link Flows by Report Interval

TIME	31		32		33		34		35		36	
	DEPT	QUEUE										
10.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42.0	4.	0.	91.	0.	109.	0.	28.	0.	65.	0.	1.	0.
52.0	10.	0.	108.	0.	171.	0.	61.	0.	169.	0.	1.	0.
62.0	12.	0.	110.	0.	184.	0.	73.	0.	190.	0.	1.	0.
73.0	15.	0.	137.	0.	189.	9.	53.	0.	210.	0.	1.	0.
83.0	12.	0.	138.	0.	182.	0.	28.	0.	213.	0.	0.	0.
94.0	11.	0.	134.	0.	168.	0.	26.	0.	198.	0.	0.	0.
104.0	11.	0.	119.	0.	151.	0.	26.	0.	182.	0.	0.	0.
114.0	11.	0.	119.	0.	151.	0.	26.	0.	176.	0.	0.	0.
125.0	10.	0.	110.	0.	143.	0.	26.	0.	172.	0.	0.	0.
135.0	5.	0.	79.	0.	105.	0.	25.	0.	120.	0.	0.	0.
146.0	2.	0.	79.	0.	104.	0.	25.	0.	108.	0.	0.	0.
156.0	1.	0.	75.	0.	101.	0.	25.	0.	106.	0.	0.	0.
166.0	6.	0.	70.	0.	94.	0.	25.	0.	96.	0.	0.	0.
177.0	15.	0.	70.	0.	94.	0.	25.	0.	94.	0.	0.	0.
187.0	17.	0.	70.	0.	94.	0.	25.	0.	94.	0.	0.	0.
198.0	7.	0.	70.	0.	94.	0.	25.	0.	94.	0.	0.	0.
208.0	0.	0.	70.	0.	87.	0.	16.	0.	91.	0.	0.	0.
218.0	0.	0.	70.	0.	81.	0.	11.	0.	82.	0.	0.	0.
229.0	0.	0.	70.	0.	80.	0.	11.	0.	81.	0.	0.	0.
239.0	0.	0.	29.	0.	35.	0.	0.	0.	63.	0.	0.	0.

Clinton Power Station/Winter Day/Adverse Weather
 Selected Link Flows by Report Interval

TIME	49		50		51		52		53		54	
	DEPT	QUEUE										
10.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.0	1.	0.	0.	0.	0.	0.	3.	0.	0.	0.	7.	0.
42.0	18.	0.	21.	0.	81.	0.	93.	20.	31.	0.	78.	17.
52.0	19.	0.	23.	0.	87.	0.	93.	20.	61.	0.	54.	18.
62.0	20.	0.	23.	0.	88.	0.	93.	20.	72.	0.	53.	17.
73.0	26.	0.	26.	0.	103.	0.	94.	20.	49.	0.	79.	13.
83.0	26.	0.	26.	0.	104.	0.	94.	20.	28.	0.	86.	13.
94.0	25.	0.	26.	0.	104.	0.	94.	20.	26.	0.	86.	13.
104.0	23.	0.	25.	0.	102.	0.	94.	20.	26.	0.	86.	13.
114.0	23.	0.	25.	0.	102.	0.	94.	20.	26.	0.	86.	13.
125.0	19.	0.	24.	0.	95.	0.	93.	20.	26.	0.	88.	12.
135.0	12.	0.	21.	0.	79.	0.	93.	20.	25.	0.	92.	12.
146.0	12.	0.	21.	0.	79.	0.	93.	20.	25.	0.	92.	12.
156.0	11.	0.	21.	0.	76.	0.	93.	20.	25.	0.	93.	12.
166.0	11.	0.	20.	0.	73.	0.	93.	20.	25.	0.	93.	12.
177.0	11.	0.	20.	0.	73.	0.	93.	20.	25.	0.	93.	12.
187.0	11.	0.	20.	0.	73.	0.	93.	20.	25.	0.	93.	12.
198.0	11.	0.	20.	0.	73.	0.	93.	20.	25.	0.	93.	12.
208.0	11.	0.	20.	0.	73.	0.	93.	20.	15.	0.	93.	11.
218.0	11.	0.	20.	0.	73.	0.	93.	20.	11.	0.	93.	11.
229.0	11.	0.	20.	0.	73.	0.	93.	13.	10.	0.	79.	0.
239.0	3.	0.	4.	0.	19.	0.	13.	0.	0.	0.	0.	0.

Clinton Power Station/Winter Day/Adverse Weather
 Selected Link Flows by Report Interval

TIME	85		86		87		88		89		90	
	DEPT	QUEUE										
10.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.0	0.	0.	0.	0.	9.	0.	0.	0.	0.	0.	6.	0.
42.0	6.	0.	1.	0.	58.	37.	95.	0.	65.	0.	112.	0.
52.0	16.	0.	5.	0.	32.	38.	173.	0.	115.	0.	119.	0.
62.0	19.	0.	7.	0.	30.	38.	188.	0.	121.	0.	108.	0.
73.0	20.	0.	11.	0.	62.	29.	203.	0.	101.	0.	0.	0.
83.0	13.	0.	13.	0.	93.	28.	199.	0.	87.	0.	0.	0.
94.0	11.	0.	12.	0.	94.	28.	184.	0.	85.	0.	0.	0.
104.0	11.	0.	12.	0.	94.	28.	166.	0.	82.	0.	0.	0.
114.0	11.	0.	12.	0.	94.	28.	165.	0.	81.	0.	0.	0.
125.0	9.	0.	12.	0.	97.	27.	157.	0.	77.	0.	0.	0.
135.0	3.	0.	7.	0.	105.	26.	109.	0.	31.	0.	0.	0.
146.0	1.	0.	3.	0.	105.	27.	107.	0.	16.	0.	0.	0.
156.0	1.	0.	2.	0.	106.	26.	103.	0.	34.	0.	0.	0.
166.0	0.	0.	1.	0.	107.	26.	94.	0.	123.	0.	0.	0.
177.0	0.	0.	5.	0.	107.	26.	94.	0.	136.	0.	0.	0.
187.0	0.	0.	8.	0.	107.	26.	94.	0.	24.	0.	0.	0.
198.0	0.	0.	8.	0.	107.	14.	94.	0.	0.	0.	0.	0.
208.0	0.	0.	2.	0.	14.	0.	89.	0.	0.	0.	0.	0.
218.0	0.	0.	0.	0.	0.	0.	81.	0.	0.	0.	0.	0.
229.0	0.	0.	0.	0.	0.	0.	81.	0.	0.	0.	0.	0.
239.0	0.	0.	0.	0.	0.	0.	44.	0.	0.	0.	0.	0.

Clinton Power Station/Winter Day/Adverse Weather
 Selected Link Flows by Report Interval

TIME	103		104		105		106		107		108	
	DEPT	QUEUE										
10.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.0	0.	0.	0.	0.	1.	0.	0.	0.	0.	0.	0.	0.
42.0	4.	0.	0.	0.	52.	0.	36.	0.	1.	0.	16.	0.
52.0	10.	0.	0.	0.	56.	0.	60.	0.	1.	0.	18.	0.
62.0	11.	0.	0.	0.	57.	0.	62.	0.	1.	0.	18.	0.
73.0	19.	0.	1.	0.	86.	0.	87.	0.	1.	0.	24.	0.
83.0	28.	0.	1.	0.	87.	0.	100.	0.	1.	0.	24.	0.
94.0	30.	0.	1.	0.	86.	0.	102.	0.	1.	0.	23.	0.
104.0	31.	0.	1.	0.	77.	0.	96.	0.	1.	0.	22.	0.
114.0	31.	0.	1.	0.	77.	0.	93.	0.	1.	0.	22.	0.
125.0	31.	0.	1.	0.	61.	0.	87.	0.	1.	0.	18.	0.
135.0	17.	0.	0.	0.	18.	0.	35.	0.	0.	0.	11.	0.
146.0	8.	0.	0.	0.	18.	0.	21.	0.	0.	0.	11.	0.
156.0	10.	0.	0.	0.	15.	0.	19.	0.	0.	0.	11.	0.
166.0	15.	0.	0.	0.	11.	0.	12.	0.	0.	0.	10.	0.
177.0	0.	0.	0.	0.	11.	0.	11.	0.	0.	0.	10.	0.
187.0	0.	0.	0.	0.	11.	0.	10.	0.	0.	0.	10.	0.
198.0	0.	0.	0.	0.	11.	0.	10.	0.	0.	0.	10.	0.
208.0	0.	0.	0.	0.	11.	0.	10.	0.	0.	0.	10.	0.
218.0	0.	0.	0.	0.	11.	0.	10.	0.	0.	0.	10.	0.
229.0	0.	0.	0.	0.	11.	0.	10.	0.	0.	0.	10.	0.
239.0	0.	0.	0.	0.	4.	0.	8.	0.	0.	0.	3.	0.

Clinton Power Station/Winter Day/Adverse Weather
 Selected Link Flows by Report Interval

TIME	-109-		-110-		-111-		-112-		-113-	
	DEPT	QUEUE								
10.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
21.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
31.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
42.0	16.	0.	0.	0.	0.	0.	13.	0.	4.	0.
52.0	20.	0.	0.	0.	0.	0.	16.	0.	5.	0.
62.0	21.	0.	0.	0.	0.	0.	17.	0.	5.	0.
73.0	30.	0.	0.	0.	0.	0.	34.	0.	7.	0.
83.0	31.	0.	0.	0.	1.	0.	35.	0.	7.	0.
94.0	31.	0.	0.	0.	1.	0.	35.	0.	7.	0.
104.0	29.	0.	0.	0.	0.	0.	34.	0.	6.	0.
114.0	29.	0.	0.	0.	0.	0.	34.	0.	6.	0.
125.0	25.	0.	0.	0.	0.	0.	27.	0.	5.	0.
135.0	12.	0.	0.	0.	0.	0.	7.	0.	4.	0.
146.0	12.	0.	0.	0.	0.	0.	7.	0.	4.	0.
156.0	11.	0.	0.	0.	0.	0.	5.	0.	3.	0.
166.0	10.	0.	0.	0.	0.	0.	3.	0.	3.	0.
177.0	10.	0.	0.	0.	0.	0.	3.	0.	3.	0.
187.0	10.	0.	0.	0.	0.	0.	3.	0.	3.	0.
198.0	10.	0.	0.	0.	0.	0.	3.	0.	3.	0.
208.0	10.	0.	0.	0.	0.	0.	3.	0.	3.	0.
218.0	10.	0.	0.	0.	0.	0.	3.	0.	3.	0.
229.0	10.	0.	0.	0.	0.	0.	3.	0.	3.	0.
239.0	4.	0.	0.	0.	0.	0.	2.	0.	1.	0.

SIMULATION COMPLETED AT TIME 239.2

NETVAC OUTPUT – SUMMER WEEKDAY FAIR WEATHER

(March 1993)

Clinton Power Station/Summer Day/Fair Weather

Selected Link Flows by Report Interval

TIME	31		32		33		34		35		36	
	DEPT	QUEUE										
6.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34.0	1.	0.	6.	0.	4.	0.	2.	0.	10.	0.	0.	0.
39.0	16.	0.	63.	0.	80.	0.	23.	0.	67.	0.	1.	0.
45.0	37.	0.	63.	0.	100.	0.	37.	0.	119.	0.	2.	0.
50.0	45.	0.	63.	0.	106.	0.	42.	0.	129.	0.	2.	0.
56.0	49.	0.	63.	0.	108.	0.	44.	0.	133.	0.	2.	0.
62.0	53.	0.	63.	0.	109.	0.	45.	0.	134.	0.	2.	0.
67.0	61.	0.	77.	0.	118.	0.	37.	0.	130.	0.	2.	0.
73.0	35.	0.	79.	0.	109.	0.	25.	0.	129.	0.	2.	0.
78.0	14.	0.	79.	0.	104.	0.	21.	0.	120.	0.	1.	0.
84.0	8.	0.	79.	0.	103.	0.	20.	0.	117.	0.	0.	0.
90.0	7.	0.	79.	0.	103.	0.	20.	0.	116.	0.	0.	0.
95.0	7.	0.	79.	0.	103.	0.	20.	0.	116.	0.	0.	0.
101.0	7.	0.	80.	0.	103.	0.	20.	0.	116.	0.	0.	0.
106.0	6.	0.	80.	0.	103.	0.	20.	0.	116.	0.	0.	0.
112.0	6.	0.	80.	0.	103.	0.	20.	0.	116.	0.	0.	0.
118.0	6.	0.	80.	0.	103.	0.	20.	0.	116.	0.	0.	0.
123.0	6.	0.	76.	0.	100.	0.	20.	0.	114.	0.	0.	0.
129.0	5.	0.	58.	0.	79.	0.	19.	0.	91.	0.	0.	0.
134.0	6.	0.	58.	0.	78.	0.	19.	0.	80.	0.	0.	0.
140.0	7.	0.	58.	0.	78.	0.	19.	0.	80.	0.	0.	0.
146.0	5.	0.	58.	0.	78.	0.	19.	0.	80.	0.	0.	0.
151.0	2.	0.	58.	0.	78.	0.	19.	0.	79.	0.	0.	0.
157.0	1.	0.	54.	0.	74.	0.	19.	0.	76.	0.	0.	0.
162.0	7.	0.	53.	0.	72.	0.	19.	0.	73.	0.	0.	0.
168.0	12.	0.	53.	0.	72.	0.	19.	0.	72.	0.	0.	0.
174.0	14.	0.	53.	0.	72.	0.	19.	0.	72.	0.	0.	0.
179.0	10.	0.	53.	0.	65.	0.	10.	0.	69.	0.	0.	0.
185.0	2.	0.	53.	0.	62.	0.	9.	0.	63.	0.	0.	0.
190.0	0.	0.	53.	0.	62.	0.	8.	0.	62.	0.	0.	0.
196.0	0.	0.	35.	0.	44.	0.	1.	0.	59.	0.	0.	0.

Clinton Power Station/Summer Day/Fair Weather

Selected Link Flows by Report Interval

TIME	49		50		51		52		53		54	
	DEPT	QUEUE										
6.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34.0	4.	0.	4.	0.	21.	0.	33.	13.	3.	0.	41.	8.
39.0	14.	0.	16.	0.	61.	0.	71.	14.	23.	0.	50.	12.
45.0	14.	0.	16.	0.	61.	0.	71.	14.	34.	0.	47.	13.
50.0	14.	0.	16.	0.	61.	0.	71.	14.	38.	0.	46.	13.
56.0	14.	0.	16.	0.	61.	0.	71.	14.	40.	0.	46.	13.
62.0	14.	0.	16.	0.	61.	0.	71.	14.	40.	0.	48.	11.
67.0	15.	0.	18.	0.	70.	0.	72.	14.	31.	0.	65.	7.
73.0	15.	0.	18.	0.	70.	0.	72.	14.	22.	0.	68.	7.
78.0	15.	0.	18.	0.	70.	0.	72.	14.	20.	0.	68.	7.
84.0	15.	0.	18.	0.	70.	0.	72.	14.	20.	0.	68.	7.
90.0	15.	0.	18.	0.	70.	0.	72.	14.	20.	0.	68.	7.
95.0	15.	0.	18.	0.	71.	0.	72.	14.	20.	0.	68.	7.
101.0	15.	0.	18.	0.	72.	0.	72.	14.	20.	0.	68.	7.
106.0	15.	0.	18.	0.	72.	0.	72.	14.	20.	0.	68.	7.
112.0	15.	0.	18.	0.	72.	0.	72.	14.	20.	0.	68.	7.
118.0	15.	0.	18.	0.	72.	0.	72.	14.	20.	0.	68.	7.
123.0	12.	0.	17.	0.	67.	0.	72.	14.	20.	0.	69.	6.
129.0	9.	0.	16.	0.	59.	0.	71.	14.	19.	0.	71.	6.
134.0	9.	0.	16.	0.	59.	0.	71.	14.	19.	0.	71.	6.
140.0	9.	0.	16.	0.	59.	0.	71.	14.	19.	0.	71.	6.
146.0	9.	0.	16.	0.	59.	0.	71.	14.	19.	0.	71.	6.
151.0	9.	0.	16.	0.	59.	0.	71.	14.	19.	0.	71.	6.
157.0	8.	0.	15.	0.	56.	0.	71.	14.	19.	0.	71.	6.
162.0	8.	0.	15.	0.	56.	0.	71.	14.	19.	0.	71.	6.
168.0	8.	0.	15.	0.	56.	0.	71.	14.	19.	0.	71.	6.
174.0	8.	0.	15.	0.	56.	0.	71.	14.	18.	0.	71.	5.
179.0	8.	0.	15.	0.	56.	0.	71.	14.	10.	0.	71.	5.
185.0	8.	0.	15.	0.	56.	0.	71.	14.	9.	0.	71.	5.
190.0	8.	0.	15.	0.	56.	0.	71.	14.	8.	0.	62.	0.
196.0	4.	0.	5.	0.	20.	0.	15.	0.	0.	0.	0.	0.

Clinton Power Station/Summer Day/Fair Weather

Selected Link Flows by Report Interval

TIME	85		86		87		88		89		90	
	DEPT	QUEUE										
6.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34.0	1.	0.	0.	0.	34.	11.	3.	0.	6.	0.	34.	0.
39.0	16.	0.	2.	0.	42.	32.	71.	0.	45.	0.	63.	0.
45.0	30.	0.	9.	0.	33.	33.	102.	0.	57.	0.	64.	0.
50.0	35.	0.	18.	0.	31.	34.	108.	0.	59.	0.	64.	0.
56.0	37.	0.	22.	0.	30.	34.	110.	0.	59.	0.	64.	0.
62.0	38.	0.	24.	0.	31.	33.	112.	0.	60.	0.	56.	0.
67.0	41.	0.	28.	0.	53.	24.	125.	0.	51.	0.	0.	0.
73.0	37.	0.	30.	0.	72.	21.	118.	0.	42.	0.	0.	0.
78.0	24.	0.	21.	0.	75.	21.	112.	0.	40.	0.	0.	0.
84.0	13.	0.	12.	0.	75.	21.	110.	0.	40.	0.	0.	0.
90.0	8.	0.	8.	0.	75.	21.	110.	0.	40.	0.	0.	0.
95.0	7.	0.	7.	0.	75.	21.	110.	0.	41.	0.	0.	0.
101.0	6.	0.	7.	0.	75.	21.	110.	0.	43.	0.	0.	0.
106.0	6.	0.	7.	0.	75.	21.	110.	0.	44.	0.	0.	0.
112.0	6.	0.	7.	0.	75.	21.	110.	0.	44.	0.	0.	0.
118.0	6.	0.	7.	0.	75.	21.	110.	0.	44.	0.	0.	0.
123.0	5.	0.	6.	0.	77.	20.	107.	0.	42.	0.	0.	0.
129.0	2.	0.	5.	0.	81.	19.	82.	0.	19.	0.	0.	0.
134.0	1.	0.	6.	0.	81.	20.	79.	0.	10.	0.	0.	0.
140.0	1.	0.	6.	0.	81.	20.	79.	0.	8.	0.	0.	0.
146.0	1.	0.	4.	0.	81.	19.	79.	0.	8.	0.	0.	0.
151.0	1.	0.	3.	0.	81.	19.	79.	0.	8.	0.	0.	0.
157.0	0.	0.	1.	0.	82.	19.	74.	0.	48.	0.	0.	0.
162.0	0.	0.	1.	0.	82.	19.	72.	0.	83.	0.	0.	0.
168.0	0.	0.	4.	0.	82.	19.	72.	0.	88.	0.	0.	0.
174.0	0.	0.	6.	0.	66.	0.	72.	0.	43.	0.	0.	0.
179.0	0.	0.	6.	0.	0.	0.	67.	0.	0.	0.	0.	0.
185.0	0.	0.	5.	0.	0.	0.	62.	0.	0.	0.	0.	0.
190.0	0.	0.	2.	0.	0.	0.	62.	0.	0.	0.	0.	0.
196.0	0.	0.	0.	0.	0.	0.	54.	0.	0.	0.	0.	0.

Clinton Power Station/Summer Day/Fair Weather

Selected Link Flows by Report Interval

TIME	103		104		105		106		107		108	
	DEPT	QUEUE										
6.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
11.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
17.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
22.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
28.0	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
34.0	0.	0.	0.	0.	13.	0.	5.	0.	0.	0.	4.	0.
39.0	3.	0.	0.	0.	35.	0.	29.	0.	0.	0.	13.	0.
45.0	5.	0.	0.	0.	36.	0.	38.	0.	0.	0.	13.	0.
50.0	6.	0.	0.	0.	36.	0.	39.	0.	0.	0.	13.	0.
56.0	6.	0.	0.	0.	36.	0.	39.	0.	0.	0.	13.	0.
62.0	6.	0.	0.	0.	35.	0.	39.	0.	0.	0.	13.	0.
67.0	10.	0.	0.	0.	44.	0.	45.	0.	1.	0.	15.	0.
73.0	14.	0.	0.	0.	45.	0.	52.	0.	1.	0.	15.	0.
78.0	16.	0.	0.	0.	45.	0.	53.	0.	1.	0.	15.	0.
84.0	16.	0.	0.	0.	45.	0.	53.	0.	1.	0.	15.	0.
90.0	17.	0.	0.	0.	45.	0.	53.	0.	1.	0.	15.	0.
95.0	17.	0.	0.	0.	44.	0.	53.	0.	1.	0.	14.	0.
101.0	17.	0.	0.	0.	44.	0.	52.	0.	1.	0.	14.	0.
106.0	17.	0.	0.	0.	44.	0.	52.	0.	1.	0.	14.	0.
112.0	17.	0.	0.	0.	44.	0.	52.	0.	1.	0.	14.	0.
118.0	17.	0.	0.	0.	44.	0.	52.	0.	1.	0.	14.	0.
123.0	17.	0.	0.	0.	35.	0.	50.	0.	0.	0.	12.	0.
129.0	10.	0.	0.	0.	12.	0.	24.	0.	0.	0.	8.	0.
134.0	5.	0.	0.	0.	12.	0.	15.	0.	0.	0.	8.	0.
140.0	3.	0.	0.	0.	12.	0.	13.	0.	0.	0.	8.	0.
146.0	3.	0.	0.	0.	12.	0.	13.	0.	0.	0.	8.	0.
151.0	2.	0.	0.	0.	12.	0.	13.	0.	0.	0.	8.	0.
157.0	11.	0.	0.	0.	8.	0.	11.	0.	0.	0.	7.	0.
162.0	7.	0.	0.	0.	8.	0.	8.	0.	0.	0.	7.	0.
168.0	0.	0.	0.	0.	8.	0.	8.	0.	0.	0.	7.	0.
174.0	0.	0.	0.	0.	8.	0.	8.	0.	0.	0.	7.	0.
179.0	0.	0.	0.	0.	8.	0.	8.	0.	0.	0.	7.	0.
185.0	0.	0.	0.	0.	8.	0.	8.	0.	0.	0.	7.	0.
190.0	0.	0.	0.	0.	8.	0.	8.	0.	0.	0.	7.	0.
196.0	0.	0.	0.	0.	5.	0.	7.	0.	0.	0.	3.	0.

Clinton Power Station/Summer Day/Fair Weather
 Selected Link Flows by Report Interval

TIME	109	110	111	112	113
	DEPT	QUEUE	DEPT	QUEUE	DEPT
6.0	0.	0.	0.	0.	0.
11.0	0.	0.	0.	0.	0.
17.0	0.	0.	0.	0.	0.
22.0	0.	0.	0.	0.	0.
28.0	0.	0.	0.	0.	0.
34.0	3.	0.	0.	0.	3.
39.0	14.	0.	0.	0.	8.
45.0	14.	0.	0.	0.	9.
50.0	14.	0.	0.	0.	9.
56.0	14.	0.	0.	0.	9.
62.0	15.	0.	0.	0.	10.
67.0	18.	0.	0.	0.	18.
73.0	18.	0.	0.	0.	19.
78.0	18.	0.	0.	0.	19.
84.0	18.	0.	0.	0.	19.
90.0	18.	0.	0.	0.	19.
95.0	18.	0.	0.	0.	19.
101.0	18.	0.	0.	0.	19.
106.0	18.	0.	0.	0.	19.
112.0	18.	0.	0.	0.	19.
118.0	18.	0.	0.	0.	19.
123.0	15.	0.	0.	0.	15.
129.0	9.	0.	0.	0.	5.
134.0	9.	0.	0.	0.	5.
140.0	9.	0.	0.	0.	5.
146.0	9.	0.	0.	0.	5.
151.0	9.	0.	0.	0.	4.
157.0	7.	0.	0.	0.	3.
162.0	7.	0.	0.	0.	3.
168.0	7.	0.	0.	0.	3.
174.0	7.	0.	0.	0.	3.
179.0	7.	0.	0.	0.	3.
185.0	7.	0.	0.	0.	3.
190.0	7.	0.	0.	0.	3.
196.0	5.	0.	0.	0.	2.

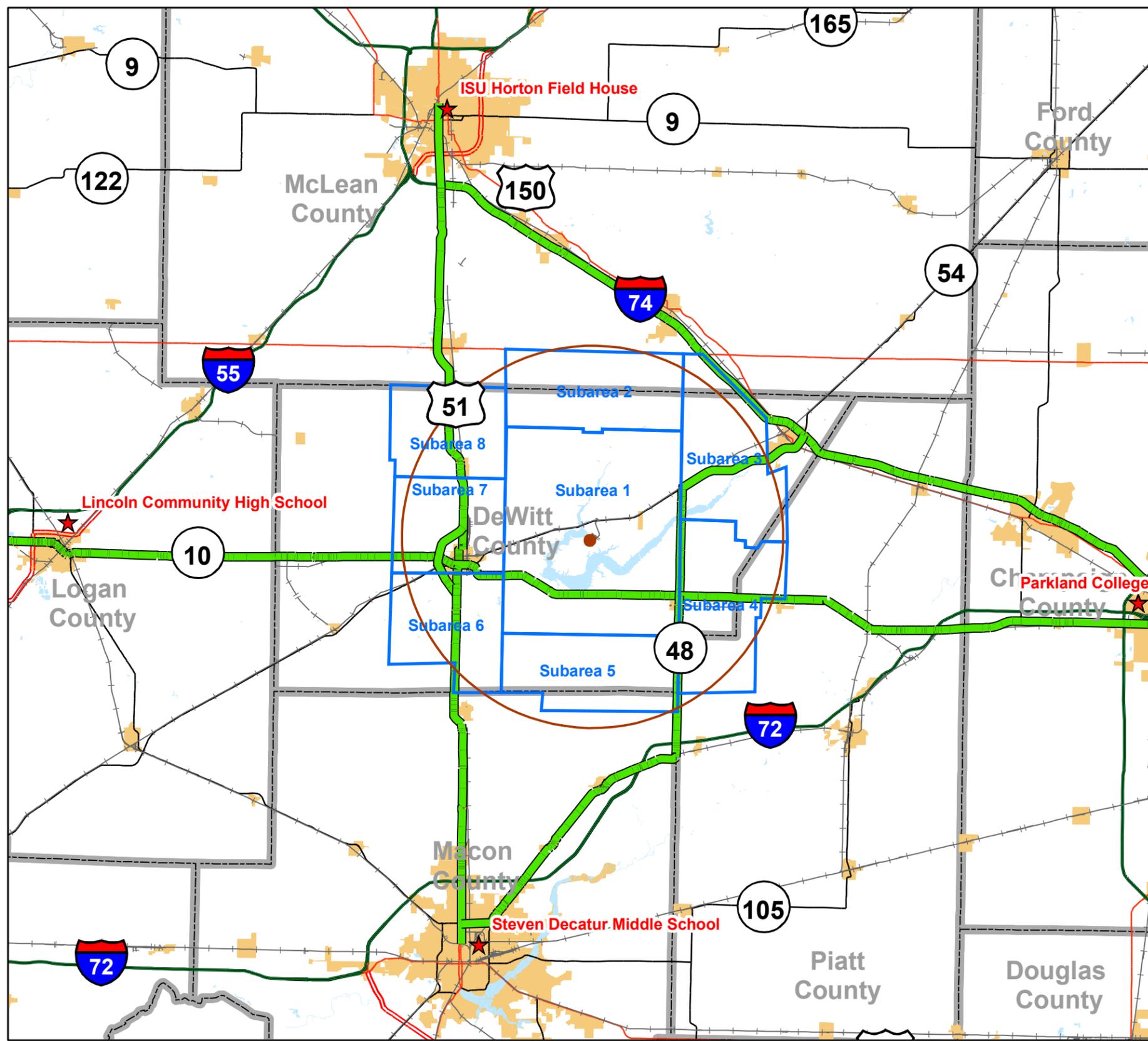
SIMULATION COMPLETED AT TIME 198.4

U.S. Nuclear Regulatory Commission
January 24, 2005
Enclosure – RAI 13.3-20, Attachment D

Revised EGC ESP EP Figure 2.3-1

Emergency Plan for the EGC Early Site Permit

**Figure 2.3-1
Evacuation Routes to Registration
and Congregate Care Shelters**



Legend

- ★ Registration and Congregate Care Shelters
- EGC ESP Site
- ESP EPZ: 10 mi Site Buffer
- EPZ Subareas
- Emergency Evacuation Route
- Interstate, Fully access controlled
- U.S. Highway, Multilane divided
- U.S. Highway
- State Route
- Water: Lakes and Rivers
- Incorporated/Designated Places
- ▭ County Boundary

Data Sources:
 Bureau of Transportation Statistics, 2000
 U.S. Census Bureau, 2000
 U.S. Census Bureau, 2002a
 U.S. Census Bureau, 2002b

