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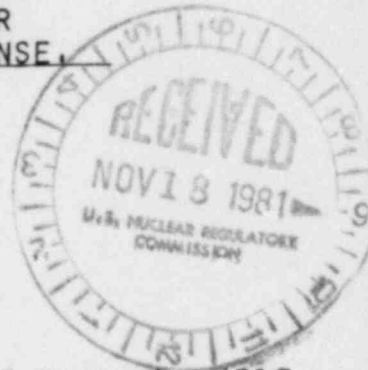
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In the Matter of :

CINCINNATI GAS AND ELECTRIC :
COMPANY, ET AL. :
(William H. Zimmer Nuclear :
Power Station) :

DOCKET NO. 50-358
APPLICATION FOR
OPERATING LICENSE

REVISED CONTENTIONS
ZIMMER AREA CITIZENS-ZIMMER AREA
CITIZENS OF KENTUCKY



Zimmer Area Citizens-Zimmer Area Citizens of Kentucky (ZAC-ZACK) sets forth its revised contentions pursuant to the Pre-hearing Conference Order issued by the Board November 5, 1981.

REVISED CONTENTIONS

The authorities set forth in ZAC-ZACK's contentions as originally filed are incorporated herein and those portions of 10 C.F.R. and NUREG-0654, FEMA-REP-1 cited as interim rules and regulation in the original contentions are hereby amended to incorporate those provisions in their final form.

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Authority for the requirement that Brown County, Ohio, be included into the emergency planning response of the plume exposure zone is as follows: Brown County is situated approximately 10 and 1/8th miles generally east from the Zimmer Station; the current plume exposure zone depicted on emergency planning zone maps presented in local plans terminates the plume exposure EPZ at the Brown and Clermont counties border; the conditions of the topography and land characteristics placing the involved areas of Brown County in an elevation plane in excess of 400 feet above the Zimmer Station; access routes for the affected Brown County population are in part common for certain affected populations in Clermont County (particularly U.S. 52 and the population of Clermont County involved in Designated Sector SE(G), ESE(F) and E(E) involving an approximate Clermont County population of 2,518 [Clermont Plan, §II-I, at pp. II-I-17 and II-I-22] in which that affected population is routed from U.S. 52 to S.R. 133 and subsequently alternate S.R. 222 and 232 [Clermont Plan §II-I, at p. II-I-18] requiring a greater distance and travel time within the plume exposed area); the condition that in Brown County there are no response needs, capabilities or implementation of emergency resource personnel for an emergency response to a Zimmer accident or event; and 10 C.F.R. §50.47 (c) (2), which provides, inter alia:

[g]enerally, the plume exposure pathway EPZ for nuclear power plants shall consist of an area about 10 miles [16 km] in radius * * * * The exact size and configuration of the EPZs surrounding a particular nuclear power reactor shall be determined in relation to local emergency response needs and capabilities as they are affected by such conditions as demography, topography, land characteristics, access routes, and jurisdictional boundaries." (Emphasis supplied by writer).

See also 10 C.F.R. §50.33(g) to the same effect.

Revised Contentions Presented.

20. The evacuation plans and the emergency response capabilities for the plume exposure pathway of the Emergency Planning Zone consisting of, and involving, parts of Clermont County and Brown County, Ohio, and Campbell County, Pendleton County and Bracken County, Kentucky, including the municipal and village political subdivisions therein, are inadequate in their respective failures to timely and promptly evacuate the population within that zone to appropriately reduce, or minimize, radiation exposure for the protection of the safety and health of the public, due to:

a). The absence of a local control site, or emergency operations center, in Brown County, Ohio, as the emergency resource and command center, as well as the absence of any equipment or staff in Brown County responsible for controlling and directing the evacuation of the affected Brown County population and a portion of the Clermont County population, or in any manner directing, and altering as necessary, evacuation routes in Brown County and directing and deploying police, fire and para-medic personnel as emergency response personnel.

Specifically.

1]. The absence of any plan, county or state, which addresses emergency response in Brown County for prompt notification of the populace affected to evacuate or to determine evacuation routes and related deployment of emergency resource personnel to support evacuation and render aid to the population as necessary. [No plan is in existence].

2]. The absence of any prompt warning system in Brown County to notify the public to take protective action, including evacuation, and subsequent information pertaining to protective action, including evacuation routes. [No plan or equipment is in existence].

3]. The absence of a Disaster Service Agency (and its Director) in Brown County to create an emergency preparedness plan and to coordinate, supervise and implement emergency preparedness and resources in the event of accident or event at the Zimmer Station, to direct protective action, including evacuation and deployment of local emergency support groups to implement prompt and timely evacuation of the affected population of Brown County and a portion of the Clermont County population; and the absence of an emergency operations center in Brown County properly equipped and staffed to protect the health and safety of the affected populace of Brown County. [No plan, Disaster Service Agency, EOC or staff and equipment is in existence].

b]. The absence of adequate communication system, or systems, both telephone and radio, for the coordination and direction of evacuation and receipt and dissemination of data and information within any involved county, including Brown County, Ohio, for communications between the respective county EOC and the emergency response support groups and between personnel of the emergency response support groups.

Specifically.

1]. The absence of any radio facility in Brown County, Ohio, capable of receipt and transmission of messages between Brown County and its emergency response support groups, i.e., police, fire, para-medical and special concerns (nursing homes, schools, parks) and between Brown County and the counties of Clermont, Ohio, and Campbell, Pendleton and Bracken, Kentucky EOCs, the Ohio and Kentucky state EOCs and the applicants' EOF. [No plan provision].

2]. The absence of any dedicated telephone lines situated in Brown County for communications between Brown County, Ohio, and Clermont County, Ohio, Campbell County, Pendleton and Bracken County, Kentucky EOCs, Ohio and Kentucky state EOCs, and the applicants' EOF. [No plan provision].

3]. Any and all telephone contact with Brown County, Ohio, from and to Clermont County, Ohio, Campbell, Pendleton and Bracken Counties, Kentucky, EOCs, Ohio and Kentucky EOCs and applicants' EOF, would require use of limited long distance

trunk lines involving the General and Bell telephone systems.
[No plan provision].

4]. Radio communications between base and mobile radios utilized by Clermont County emergency response support groups within an approximate area of four miles of the Zimmer Station in the near environs of U.S. 52 paralleling the Ohio River are incapable of radio transmission due to topographical and land characteristics of that area creating blank, or void, radio transmission whereby radio signals meet natural terrain barriers. [No plan provision].

5]. The Clermont County Emergency Plan provides for communications among some of its emergency resource agencies by non-dedicated telephone line only, involving limited trunk service to certain agencies (one to four telephone lines), utilization of long distance telephone lines involving General Bell telephone systems, and as such this portion of the communications plan does not provide a reasonable assurance that communications necessary to a timely and prompt evacuation can be implemented, especially where limited trunk lines for telephone usage are subject to overload, e.g.,

i]. Communications between the Superintendent of the Clermont County Board of Education-County EOC and the Superintendent of the Felicity-Franklin School District requires use of limited long distance trunk lines, subject to overload, between Bell and General telephone systems: Felicity-Franklin Superintendent has three trunk lines for use in

communications between the County Superintendent and to summon school bus drivers (approximately 18) to the school site for student evacuation;

ii]. The Superintendent of Bethel-Tate School District has two telephone trunk lines, subject to overload, for use in communications between the County Superintendent and to summon school bus drivers (approximately 15) to the school site for student evacuation;

iii]. The Superintendent of the New Richmond School District has four telephone trunk lines, subject to overload, for use in communications between the County Superintendent and to summon school bus drivers (approximately 17) to the school site for student evacuation and for telephone communications to the Monroe and Pierce Elementary Schools within the District, each school has two telephone trunk lines;

iv]. The telephone trunk lines for each of the affected school districts will be overloaded during emergency situations due to parental telephoning into the schools;

v]. All notifications to the County Superintendent, affected school districts, reception school districts, school district transportation supervisors, and school district bus drivers is by non-dedicated, existing telephone trunk lines. [Plan, §II-E, Table E-1, pp. II-E-3 and 5; §III-A, p. III-A-2; §III-C, pp. III-C-1 through 3].

6]. The Campbell County Emergency Plan provides for communications among some of its emergency resource agencies by monitor radio and non-dedicated telephone lines, involving limited trunk service to certain agencies (one to four telephone lines), subject to overload, and as such this portion of the communications plan does not provide a reasonable assurance that communications necessary to a timely and prompt evacuation can be implemented, e.g.,

i]. Communications to County School Superintendent by monitor radio and subsequent non-dedicated telephone use (four trunk lines to Superintendent);

ii]. County Superintendent's notification to five elementary and one middle school, including A. J. Jolly Elementary School within two miles of the Zimmer Station, is by a single non-dedicated telephone line into each of the six schools, each trunk line into each school is subject to overload;

iii]. County Superintendent's notification to the Alexandria Elementary School and the bus garage is by two non-dedicated telephone lines into each facility, both of which are subject to overload;

iv]. The County Superintendent's four non-dedicated trunk lines and the bus garage's two non-dedicated trunk lines are the means of communications to 54 regular and seven substitute bus drivers to summon school buses to nine school sites for student evacuation;

v]. The telephone trunk lines for each of the affected schools, the Superintendent and the bus garage will be overloaded during emergency situations due to parental telephoning into the schools;

vi]. All notification (except initial notification to Superintendent by monitor radio) and communications between schools, bus drivers and transportation supervisor is by non-dedicated, existing telephone trunk lines. [Plan, Basic Plan, pp. V-5,6; Annex B, Communications, p. B-3; Annex C, Notification & Warning, p. C-4].

7]. The Pendleton County Emergency Plan provides for notification and communications of and between emergency resource personnel by monitor radio and in most instances by pager or non-dedicated telephone absent reasonable assurance that contact can be made by pager (distance limitation in transmission) or by telephone, and as such this portion of the communications plan does not provide a reasonable assurance that communications necessary to a timely and prompt evacuation can be implemented, e.g.,

i]. Judge/Executive notified from DES Director by pager or telephone; DES Director notified from Communications Coordinator by pager or telephone; County EOC personnel to be notified by telephone, pager, or radio;

ii]. DES Director contact, communication and notification with Fire and Rescue Coordinator by means of

telephoning an answering service and thereafter the answering service "contacting" (assumption is by telephone) that coordinator who will in turn communicate with the DES Director by telephone;

iii]. Communications to fire departments will be by telephone, whether between fire company members or between fire chief and Fire and Rescue Coordinator (only the Falmouth Fire Department has radio contact with the EOC);

iv]. Notification to the Law Enforcement Coordinator from the DES Director by pager or telephone;

v]. Notification to key emergency response personnel by pager, telephone, or answering service, and communications with certain emergency response personnel is inadequate to present reasonable assurance that notification and subsequent communications can be made and sustained where limited to non-dedicated commercial telephone line providing for single telephone trunk. [Plan, Annex A, Direction and Control, pp. A-5 through 7 and 9; Annex C, Notification & Warning, p. C-2-1].

vi]. Notification of special concerns by monitor radio (except Butler and Grant's Lick Nursing Homes and Black River Mining Company which is silent as to notification) is Northern Elementary School, other communications by commercial radio. [Plan, Annex F, Protective Actions, pp. F-9-1 and 2].

8]. The Bracken County Emergency Plan provides for notification and communications of and between emergency resource personnel by monitor radio and in most instances by pager or non-dedicated telephone absent reasonable assurance that contact can be made by pager (distance limitation in transmission) or by telephone, and as such this portion of the communications plan does not provide a reasonable assurance that communications necessary to a timely and prompt evacuation can be implemented, e.g.,

i]. Judge/Executive and DES Director notified from Communications and Warning Coordinator by pager or telephone; County EOC personnel to be notified by telephone, pager or radio;

ii]. Fire and police emergency response personnel to be notified by pager; field fire response personnel will communicate with the County EOC by telephone;

iii]. Law Enforcement Coordinator will be notified by pager or telephone;

iv]. Notification to key emergency response personnel by pager and communications by telephone;

v]. Notification to School Preparedness Coordinator and to Western Hills Elementary School by monitor radio, other communications by telephone, including summoning of school buses for evacuation of students. [Plan, Annex A, Direction &

Control, pp. A-6, 13; Annex C, Notification & Warning, C-2-1; Annex F, Protective Actions, pp. F-9-1 and 2].

c). The public roadways, as access roads for the evacuation of the EPZ populace of Clermont and Brown Counties, Ohio, and Campbell, Pendleton and Bracken Counties, Kentucky, are inadequate to promptly and timely evacuate the involved population.

Specifically.

1). The Clermont population in Designated Sectors SSE(H) and SE(G), a permanent population of approximately 800, proceed in an easterly direction from the Zimmer Station on the major evacuation route of U.S. 52, through Washington and into Franklin Townships, to S.R. 133, the junction of which is not an access control site and then proceed in a northerly direction on S.R. 133, a distance in excess of 10 miles to S.R. 125 at Bethel, Ohio, at which point they are emerging from the plume exposure area (an approximate distance of 11-mile exposure of the plume on U.S. 52 and an approximate distance of 13-mile exposure of plume on S.R. 133, for a total approximate distance of plume exposure of 24 miles); or alternatively the evacuees may proceed northerly on S.R. 133 to the Village of Felicity and then proceed on S.R. 222 to S.R. 232 to S.R. 125 at Bethel (an approximate distance of 11-mile exposure of plume on U.S. 52 and an approximate distance of 20-mile plume exposure

on S.R.s 133, 222 and 232, for a total approximate distance of plume exposure of 31 miles); or alternatively after traveling on S.R. 222 to remain on that route to its intersection with S.R. 125 near Bethel (for a total approximate distance of plume exposure of 29 miles). From entry onto S.R.s 133, 222 and 232 there are no control access control point until the evacuees reach S.R. 125. At 0.25 miles east of the intersection of U.S. 52 and S.R. 133, on U.S. 52, there is a manned access control to direct traffic flow return to S.R. 133. The population east of the stated access control point (on U.S. 52 0.25 mile east of S.R. 133) involving the populations situated east of S.R. 133 and the Village of Utopia and approximately 40 roads servicing residents in the previously stated Designated Sectors and the additional Designated Sectors of E(E), ENE(D) and NE(C), are not within the evacuation route designated and must either proceed into the plume area by proceeding by roadways intersecting S.R. 133 or by following county and township roads to S.R. 125 west of Bethel, or proceeding directly into Brown County. The aforestated designated evacuation route fails in its implementation to timely and promptly evacuate this portion of the Clermont population from the plume exposure zone. [Clermont Plan, §II-I, Protective Response, pp. II-I-17, 18, 22 and 23].

2]. The Clermont population in Designated Sectors (portions) E(E), ENE(D), NE(C), NNE(B) and N(A), constituting

the populations of Monroe and Washington Townships, approximately 1,639 permanent population, are to proceed by alternative routes: one, a southerly direction to U.S. 52 toward the Zimmer Station and thence west on U.S. 52; two, proceed in a northwesterly direction to S.R. 132, thence north on S.R. 132 to S.R. 125; or, three, a northeasterly direction to S.R. 222, thence northerly on S.R. 222 to S.R. 125; in which the roadways servicing that population for travel to an evacuation route consists of two state roadways and approximately 38 county and township roadways. Manned access control points are located on S.R. 756, 0.25 miles south of Brown Road, on Laurel-Point Isabel Road 0.1 miles west of S.R. 222, and on S.R. 743 0.5 miles west of S.R. 222 in Washington Township to direct traffic flow, and at the junction of S.R.s 232 and 756, S.R. 232 0.5 miles north of Ireton Trees Road and at the juncture of Franklin-Laurel and Carnes Roads in Monroe Township. The county, township and two state roadways for travel to an evacuation route situated in the afore-stated sectors are narrow, winding, hilly and hazardous roadways unsupervised for traffic flow and control, except limitedly manned as noted, for prompt, safe and timely evacuation of the permanent population within the area. The road configurations will not afford directions by radio to that population of the numerous roadways that the population must follow to correct evacuation routes and a safe evacuation in a prompt manner in

the appropriate direction of travel cannot be implemented.

[Clermont Plan, §II-I, Protective Responses, pp. II-I-17, 18, 22 and 23].

3]. Clermont population in Designated Sectors N(A), NNW(R) and NNE(B), consisting of a portion of Monroe Township, Ohio Township and a portion of Pierce Township, (a permanent population of 10,596) are to proceed either to U.S. 52, thence in a westerly direction and out of the plume area; or, to proceed to S.R. 132, thence in a northerly direction to S.R. 125, in which the roadways for travel to an evacuation route servicing that population consists of one state roadway and 27 county and township roadways. There are two access control points on the perimeter of the plume zone, at the junction of S.R. 749 and Cole Road and on Jenny Lind Road 0.25 miles south of Cole Road, but no access control points within the affected township areas. The roadways for travel to an evacuation route in the aforesated sector are narrow, winding, hilly and hazardous roadways unsupervised for traffic flow and control, except limitedly manned as noted, for prompt, safe and timely evacuation of the permanent population within the area and a safe evacuation in a prompt manner in the appropriate direction of travel cannot be implemented. [Clermont Plan, §II-I, Protective Response, pp. II-I-17, 18, 22 and 23].

4]. There is no designated plan or evacuation route present for the affected population of Brown County, Ohio. The

roadways in the affected areas of Brown County are narrow, winding, hilly and hazardous roadways, all two-lane, no designated access control points, and as such cannot support a prompt, safe and timely evacuation of the permanent population located within the affected area. [No plan provision].

5]. The Clermont permanent population within the plume area is rural, generally serviced by narrow and winding township roads without center line and involving country lanes approximately eight feet in width and ranging from 200 to 700-foot depth from the township roadway. The use of CART buses, "as available", cannot reasonably assure prompt transportation for evacuees without vehicles assembled at pickup sites. School buses cannot be used for public transportation; §§3313.172 and 3327.14, Revised Code of Ohio, preclude use of school buses for public transportation, except transportation of senior citizens and adult education groups, rendering the use of school buses for public transportation unlawful. Vehicles used to afford transportation of handicapped and individuals without vehicles must be capable of driving country lanes, removing the ability of buses, CART or otherwise, from traveling such lanes or negotiating turn-around at residences. The timely and safe evacuation of the population without vehicles cannot be implemented. [Clermont Plan, §II-I, Protective Response, p. II-I-5; §III-A, County Agencies (Gen), pp. III-A-1 and 2; §III-C, County School Districts, pp. III-C-1 and 2].

6]. The evacuation time estimates for evacuation of the Clermont population, ranging from 1.0 to 3.9 hours, do not recognize the roadway circumstances of Clermont County, and evacuation routing, the location of residences from public roadways, fails to take into account roadway blockage due to vehicular mishap, weather circumstances of the area as reflected by the Clermont DSA time study estimating evacuation times within a range of 2.5 to 77.5 hours, fails to consider the character of the population (unprepared as to provisions to be transported, inadequate fuel in evacuation vehicle, single vehicle families in which vehicle is at work site, attempts to make telephone contact with police agency to determine if emergency is a test or actual, detouring from evacuation routes to gather family members not at home, family returning to home from off-home site, panic reaction, vehicular mishap, impassable roadways due to flooding, ice or snow and inadequate roadways leading to evacuation routes), paragraphs 1] through 3] and 5], supra, and as such the time estimates are grossly underestimated and the population cannot be evacuated within the mandatory time limitations. [Clermont Plan, §II-I, Protective Response, p. II-I-15; Table 3-2, p.3-7 of Attachment I-2, Stone & Webster Time Study].

7]. The evacuation of the Campbell County population directed in a generally north direction of Persimmon Grove Road to proceed in a generally northwesterly direction on evacuation

routes Ky 10 and Ky 8 are inadequate where the plume pathway of radiation release from the Zimmer Station is generally northwesterly proceeding in the same path as the evacuation routing, and is inadequate in the failure to evacuate that portion of the population away from the plume pathway; and the evacuation of the Campbell County population directed in a generally south direction of Persimmon Grove Road to proceed in a generally westerly direction on evacuation routes 1121, 1280 and U.S. 27 are inadequate where the plume pathway of radiation release from the Zimmer Station is generally westerly proceeding in the same path as the evacuation routing, and is inadequate in the failure to evacuate that portion of the population away from the plume pathway. Implementation of the evacuation under the stated circumstances provides no reasonable assurance that the health and safety of the affected population is protected. [Campbell Plan, Annex F, Protective Actions, p. F-14-1].

8]. Campbell evacuation routes 1121, California Cross Road and Persimmon Grove Pike are narrow, winding and hilly with steep inclines; Lickert Road has four 90° turns and a narrow bridge impeding evacuation and where it intersects U.S. 27 there is no access point control to direct traffic flow resulting in traffic blockage or accident; Ky 8 is narrow without road berm, or shoulder, and approximately one-half mile southeast of Oneonta for an approximate distance of one-fourth

of a mile the road has eroded and been without repair for a substantial period; Wesley Chapel Road and 1197 are narrow, hilly ridge roads; Ky 10 is a narrow winding ridge road and parallels 12-Mile Creek and during flooding this portion of Ky 10 is impassable; and the approximate 50 rural service roads that the population must travel to evacuation routes are approximately 12 feet wide without centerline, some gravel roadways leading to evacuation routes, due to topography and land characteristics, are not capable of affording prompt and timely evacuation of the population. [No plan provision].

9]. There is an inadequate number of school buses to timely and promptly evacuate students of the nine schools within Campbell County subject to plume exposure, and during school session evacuation the use of school buses as vehicles for evacuation of the general public without transportation is incapable of affording timely and prompt evacuation of that segment of the population; there are no posted school bus stops or routes and there is no plan provision to educate the public where they are to assemble for school bus transportation to afford timely and prompt evacuation of that segment of the population; the roadways within approximately eight miles of the Zimmer Station are inadequate for TANK bus travel and maneuverability. The plan is not capable of being implemented in a timely and safe manner to evacuate that portion of the

population without personal vehicles. [Campbell Plan, Basic Plan, pp. 5 and 6; Annex, Protective Actions, p. F-9-1].

9]. Access control points are inadequate in number and placement to direct and control traffic during evacuation and the plan does not provide any reasonable assurance that an adequate number of police and other support groups are available to discharge the responsibility and police and support groups are insufficient in number to be timely deployed to control evacuation traffic. [Campbell Plan, Basic Plan, p. V-7; Annex F, Protective Actions, pp. F-10-1 and 2; Annex G, Law Enforcement, p. G-1-1: other than a statement of the identity of police units, no information is provided as to number of personnel, vehicles and equipment to provide reasonable assurance that the plan is capable of being implemented].

10]. The evacuation time estimates for the evacuation of the Campbell population, ranging from 1.0 to 2.9 hours, as performed by Stone & Webster, and ranging from 1.25 to 11.25 hours, estimated by Kentucky DES, do not recognize the roadway characteristics of Campbell County, the location of residences from public roadways, and fail to consider the character of the population (unprepared as to provisions to be transported, inadequate fuel in evacuation vehicle, single vehicle families in which the vehicle is at the work site, attempts to make telephone contact with a police agency to determine if emergency

is a test or actual, detouring from evacuation routes to gather family members not at home, family returning to home from off-home site, panic reaction, vehicular mishap, impassable roadways due to flooding, ice or snow, inadequate roadways leading to evacuation routes, and the character of evacuation roadways as to topography and land characteristics), and as such the time estimates are grossly underestimated and the population cannot be evacuated within the mandatory time limitations. [Campbell Plan, Annex F, Protective Actions, Appendix F-18, pp. 3-6 and 3-7].

11]. Pendleton County evacuation routes Corntown Road, Ky 10, Flour Creek Road, 159, Concord Caddo Road and Falmouth Lenexburg Road are ridge roads, steep, narrow, winding and in areas limited to maximum speeds of 25 mph; and the approximate 20 rural service roads that the population must travel to evacuation routes are approximately 12 feet wide without centerline, several gravel roads, winding and hilly; the evacuation routes and access roadways leading to evacuation routes, due to topography and land characteristics, are not capable of affording prompt and timely evacuation of the population. [No plan provision].

12]. Evacuation time estimates are inadequate for the reasons presented in paragraphs 6] and 10] supra and this plan again sets forth the Stone & Webster study.

13]. Bracken County evacuation routes Ky 10, 1109 and Ky 8 are ridge roads, steep, hilly, narrow and winding and the approximate 10 rural service roads that the population must travel to the evacuation routes are approximately 12-foot in width without centerline, winding and hilly and incapable of affording prompt and timely evacuation of the population. [No plan provision].

14]. Evacuation time estimates are inadequate for the reasons presented in paragraphs 6] and 10] supra and this plan again sets forth the Stone & Webster study.

d]. This contention is withdrawn.

e]. The involved counties of Ohio and Kentucky possess no professional, full-time fire and life squads, relying totally upon volunteer, part-time personnel whose primary concern and responsibility is to other endeavors and who have limited training; and the involved counties rely in many respects upon volunteer, auxiliary policemen to supplement inadequately staffed local police units and the total full-time and auxiliary police personnel, by number, are inadequate to provide immediate and necessary police control in an emergency situation and the emergency resource personnel of police, fire and para-medic are inadequate for utilization during initial emergency and evacuation.

Specifically.

1]. Brown County, Ohio, has an inadequate number of police officers to afford traffic control and other necessary functions incident to evacuation. [No plan provision].

2]. Brown County, Ohio, has an inadequate number of fire and life squad personnel, all volunteer, to afford adequate emergency resource response and cannot with reasonable assurance be available to discharge assigned responsibilities. [No plan provision].

3]. Clermont County has only volunteer fire squads. Fire personnel are assigned supporting access control action as available and no dependable count is furnished by the plan. Fire personnel within the plume area will provide door-to-door verification of population notification consisting of 113 volunteer personnel and 28 vehicles with an additional combined fire and life squad group of 134 (fire personnel numbers not stated in plan) to perform tasks in either the plume or relocation area and equipped with 18 vehicles. The plan fails to indicate the number of volunteer fire personnel that would or could be available at the time of emergency. The approximate number of fire personnel available on shift at notification for initial service would be 38. The miles of roadway within the plume area, together with the miles of country lanes involved, remove any reasonable assurance that fire personnel of 38 to 267 (assuming all volunteers could and would immediately respond) to facilitate door-to-door verification of notification within the plume area and the miles of roadway present. The plan presents no reasonable assurance or upon implementation that any one, more or all of the volunteer fire personnel would

or could be present to assume the responsibilities assigned, or that such personnel would or could leave their regular employment and family responsibilities during evacuation.

[Clermont Plan, §II-I, Protective Response, p. II-I-6; §III-B, Emergency Services, pp. III-B-2, 5 and 7.]

4]. Clermont County has only volunteer life squads in which only Goshen and Miamiville have trained para-medics. The 119 life squad personnel within the plume area possess four mobile and no portable radios and no information is provided as to vehicles or equipment possessed by the plume area life squads. The plan fails to establish how many, if any, of the plume life squads have certified emergency medical technicians on their staffs. The plan fails to indicate, with any reasonable assurance, or upon implementation, that any one, more or all of the volunteer life squad personnel would or could be present to assume any responsibility in the plume area during evacuation, or that such personnel would or could leave their regular employment and family responsibilities during evacuation. [Clermont Plan, §III-B, Emergency Services, pp. III-B-4, 5 and 9].

5]. The County Sheriff has 12 road patrol deputies, the local police have 14 full-time officers, with support from Pierce Township police in the plume area providing an additional nine full-time police officers. The Ohio State Patrol has approximately 25 patrolmen at the Batavia Post. In addition to the foregoing, there are 16 volunteer police officers associated

with the local police departments. At the time of notification of an emergency mandating evacuation there would be approximately four deputy sheriffs, seven local policemen and eight State Patrolmen on duty, for a total of 19 local police officers available to provide emergency response resources to man access control points and direct traffic and maintain order within the plume evacuation area. The Clermont Plan as drawn and to be implemented provides no reasonable assurance that local police are capable of performing the response responsibility assigned, especially with the necessity to timely and safely direct and control evacuation traffic. Off-duty local police would be available on the ability to summon such officers to duty based upon the location of such officers and the presence of a point of notification contact. The plan presents no reasonable assurance (nor can it be reasonably implemented that there is an ability to contact and summon off-duty local police officers to respond within the time restrictions present to promptly and safely direct the evacuation of the population. The time restrictions necessary to activate and deploy National Guardsmen or to summon police officers from contiguous counties provides no reasonable assurance in the plan, or upon implementation, that such police and guard units can respond within time to support evacuation of the population. The number of local police officers and the limitation of police vehicles fails to provide any reasonable assurance that local police are capable of

discharging the assigned responsibility. The number of access control points for the direction of evacuation traffic is inadequate to properly, safely and timely direct the evacuating population for the health and safety of that population, together with the absence of any access control points manned by police or other support emergency response personnel in the intersecting roads for travel by evacuees to evacuation routes. [Clermont Plan, §II-I, Protective Response, pp. II-I-6, 15, 18, 23 and 24; §III-B, Emergency Services, pp. III-B-1, 5 and 6].

6]. The Clermont County Sheriff is assigned the primary command authority of all county activities in response to an emergency, including evacuation, and shall direct all primary and support agencies. The Sheriff shall direct all personnel involved in access control, including local police, local fire and State Patrol. A county sheriff is empowered, and thereby limited, by §311.07, Revised Code of Ohio, to call upon the sheriff of any adjoining county and municipal and township officials in his or adjoining counties, to furnish law enforcement and fire protection, together with appropriate equipment, as necessary, to preserve the public peace and protect persons and property only in the event of riot, insurrection, or invasion. The provisions of the plan providing command authority for emergency response to a Zimmer Station event or accident is not within the provisions of §311.07(B), Revised Code of Ohio,

as the same does not consist of riot, insurrection, or invasion, and the plan as drafted and to be implemented provides a power to the Sheriff of Clermont County to control local police, fire and State Patrol contrary to the laws of the State of Ohio and the provisions of the plan are unlawful. Based upon the legal status of the plan, it cannot provide either reasonable assurance of implementation, or implementation, by its assignment of command responsibility contrary to state law. [Clermont Plan, §II-A, Command & Coordination, p. II-A-1, Protective Response, p. II-I-6; §III-A, County Agencies (Gen), p. III-A-12].

7]. The fire personnel, in part volunteer, in Campbell County are assigned the task of fire response and, "if capable," to assist other emergency response functions without clarification. The plan provides no information as to either number of personnel and vehicles or support emergency functions. The plan fails to provide reasonable assurance that fire personnel are capable of discharging emergency response roles other than fire related activity. [Campbell Plan, Annex I, pp. I-1 and 2, I-1-2].

8]. Campbell County has no provision or information pertaining to rescue squads, except that rescue squads are present in the county fire departments and possess ambulances. No information is provided pertaining to training to treat radiological injury. The plan fails to provide reasonable

assurances that emergency medical technicians are prepared to provide services other than first aid and hospital transportation and are not trained for the identification and segregation of radiation injury. [Campbell Plan, Annex H, Medical & Public Health, p. H-2].

9]. The number of State and local police present and available to provide access control point manning and other traffic control direction to provide a reasonable assurance of a safe and timely evacuation of the population are inadequate in number, as well as an inadequate number of police to reasonably assure the safe and timely evacuation of A. J. Jolly State Park and Camp Sunshine. The plan fails to present any information pertaining to the number of police to be punctually available at the time of an evacuation, support police to be summoned and the times required to afford supported police assuming duty stations, or the number of police vehicles present and to be utilized in controlling evacuation. [Campbell Plan, Annex F, Protective Actions, p. F-9-2 and 3, F-1-1 and 2; Annex G, Law Enforcement, pp. G-12 and G-1-1, Annex K, Military Support, pp. K-1 and 2].

10]. The Fire Departments in Pendleton County are volunteer and are assigned only the duty of fire emergency. All contact with county fire units is by telephone and fire companies will be activated for fire; other functions to be coordinated at the time. The plan and its implementation fails to provide any

reasonable assurance that the fire companies will provide emergency response to protect the public in an evacuation. The plan presents no number of personnel or equipment available. [Pendleton Plan, Annex A, Direction & Control, p. A-9; Annex I, Fire Protection/Rescue, pp. I-1 and 2, I-1-1].

11]. Pendleton has no provision or information pertaining to rescue squads except that such squads are present in the three volunteer fire departments and that they are trained in rescuing fire survivors. The plan as drafted and to be implemented provides no reasonable assurance that rescue personnel can determine and segregate radiological injured persons or to provide any emergency services. [Pendleton Plan, Annex H, Health/Medical Services, pp. H-1 and 2; Annex I, Fire Protection/Rescue, pp. I-1 and 2, I-1-1].

12]. The number of State and local police and other resource support groups available to provide and man access control points and to provide traffic, together with providing traffic control and evacuation of Kincaid Lake State Park, is inadequate to present reasonable assurance by the plan or in its implementation that the population affected will be timely and safely evacuated from the exposed area. [Pendleton Plan, Annex F, Protective Actions, pp. F-9-2, F-10-1; Annex G, Law Enforcement, pp. G-1 and 2, G-1-1].

13]. Bracken County has four volunteer fire departments, trained in fire and rescue only. Departments have standby and

call up procedures and other than fire related activity, the personnel are assigned access control functions during an evacuation. The plan and its implementation fails to provide any reasonable assurance that the personnel will provide emergency response for the protection of the public during emergency. The plan presents no number of personnel or equipment available. [Bracken Plan, Annex F, Protective Actions, p. F-10-1; Annex I, Fire/Rescue Service, pp. I-1 and 2, I-1-1].

14]. Bracken County has no provision or information pertaining to rescue squads. The squads will provide ambulance service only. The plan as drafted and to be implemented provides no reasonable assurance that rescue personnel can determine and segregate radiological injuries or to provide any emergency service. [Bracken Plan, Annex H, Medical & Public Health, p. H-2; Annex I, Fire/Rescue Service, pp. I-1 and 2, I-1-1].

15]. The number of local police and other resource support groups present to provide and man access control points and to provide traffic control is inadequate to present reasonable assurance by the plan or in its implementation that the population affected will be timely and safely evacuated. [Bracken Plan, Annex F, Protective Actions, p. F-10-1; Annex G, Security and Law Enforcement, pp. G-1 and 2, G-1-1].

f]. During flood conditions of the Ohio River and its tributaries, access roadways to the Zimmer Power Station and

access roadways for evacuation, situated in Ohio, are impassable, and in certain flooding conditions the Zimmer Station site is isolated and inaccessible to emergency vehicles and in such circumstances both population evacuation and offsite assistance to the Zimmer Station are impossible.

Specifically.

1). At flood stage, Ohio River crest of 53 feet, U.S. 52, approximately 1/4th of a mile north of the Village of Neville, is under water and impassable as to U.S. 52, Neville Spur and Maple Creek Road for an approximate distance of 1/2 mile and including Maple Creek. Near the Village of Moscow, just south of S.R. 743 by several feet, U.S. 52 is under water and impassable for an approximate distance of 1/2 mile and including Ray Run. On either side of U.S. 52 at the intersection of Laurel-Moscow Road for a distance of approximately 1/2 mile, U.S. 52 is under water and impassable and at a 64-foot Ohio River crest the bridge over Little Indian Creek near Laurel-Moscow Road-U.S. 52 intersection, on U.S. 52, is under water and impassable. U.S. 52 at the Village of Point Pleasant, including the intersection of U.S. 52-Indian Road, intersection of U.S. 52 and S.R. 232, for an approximate distance of 1/2 mile is under water and impassable. From, and including, Clermontville Road, and its intersection of U.S. 52, portions of Clermontville Road and approximately 1/2 mile to the north, U.S. 52 is under water and impassable.

From a distance of approximately 1/4 mile south of the Village of New Richmond to approximately 1/4 mile south of the intersection of Bethel-New Richmond Road and U.S. 52, U.S. 52 is under water and impassable. Within two hundred yards of U.S. 52 and to the west of U.S. 52, the streets of the Village of New Richmond are under water and impassable. The bridge located on Fagins Run Road within 50 feet of S.R. 132 is under water and impassable due to the flooding of Twelve Mile Creek and that evacuation route entry into S.R. 132 for the population northeast of the location is closed. Flooding of the Ohio River at a crest of 80 feet (1937 flood) U.S. 52 is under water and impassable from approximately 1 mile east of the Village of Neville to the west and north to within approximately 200 feet of the entrance to the Zimmer Station and within 200 feet to the north of the entrance of the Zimmer Station and continuing through the Villages of Point Pleasant and New Richmond and to the northwest of New Richmond, U.S. 52 is under water and impassable. Maple Creek Road, S.R. 743, Laurel-Moscow Road, Indian Road, S.R. 232 Clermontville Altman Road, and Frank Willis Memorial Road are all under water and impassable at their respective intersections with U.S. 52, totally precluding vehicular travel to the Zimmer Station. During flood crests of the Ohio River from 53 feet to 80 feet a range from a substantial portion of an evacuation route is impassable and vehicular travel to the Zimmer Station is limited to S.R. 743

to U.S. 52 to Zimmer to the exclusion of U.S. 52 as an evacuation route from New Richmond to beyond Neville and the isolation of the Zimmer Station. Under those circumstances, including flood of the Zimmer EOF site, evacuation and emergency plans cannot be implemented. [No plan provision].

g]. This subparagraph was omitted from the original contentions by inadvertance.

h]. During inclement winter weather conditions, roadways in the involved counties of Ohio and Kentucky are impassable due to accumulations of ice and snow, rendering evacuation of the respective populations and response of offsite emergency units to the Zimmer Station impossible for substantial time periods, and the majority of access roadways for evacuation purposes remain impassable for prolonged periods of times, measured in weeks, thereby prohibiting large segments of the Emergency Planning Zone populations of the involved counties from being evacuated promptly and timely by other means; and a large segment of the Emergency Planning Zone populations of the involved counties are unable to reach access roadways from their residences for extended time periods during the presence and continuation of large accumulations of snow, thereby precluding either their evacuation by motor vehicle or the timely and prompt evacuation by other means.

Specifically.

1]. The Ohio roadways set forth in Contention 20 c) 1), 2) and 3) and the Kentucky roadways set forth in Contention

20 c) 7), 8), 11), and 13) are rendered impassable due to ice and snow accumulations during the period December 1 to March 31 annually. The roadway crews available in each of the respective counties are not equipped to rapidly remove snow and to sand and salt to render the roadways passable. The federal and state highways in the respective counties remain impassable for periods of approximately three hours to 15 hours. County and township roadways cannot be made passable from periods ranging for two to 14 days. The topography and land characteristics, together with the roadways being hilly, narrow, steep and winding, precludes any vehicle travel, other than four wheel drive vehicles. Police vehicles were rendered useless during the winters of 1977 and 1978 and police activity was limited to one four-wheel vehicle in Clermont County and volunteer four-wheel drive operators to transport necessities to families that could not leave their residences. A majority of the population of the involved counties maintain their residences approximately 100 to 700 feet from the public roadway and vehicles at the home are inoperative and transportation by vehicle is capable only at the intersection of the residence lane with the public roadway. An evacuation during snow or ice accumulation, rendering a portion or all of the evacuation routes impassable and rendering the service roadways of township and county roadways for travel to evacuation routes impassable would

result in the inability to evacuate the affected population due to impassable roadways and the absence of sufficient support vehicles present to evacuate. No county possesses sufficient snow moving, salting and sanding equipment and personnel to maintain roadways passable during snow and ice accumulation to present reasonable assurance that the population can evacuate during this seasonable condition. [No plan provision].

21. The evacuation plans for the plume exposure pathway of the Emergency Planning Zone includes 18 elementary and secondary schools situated in Clermont County, Ohio and Bracken County, Pendleton County and Campbell County, Kentucky. Evacuation plans for these schools are inadequate to evacuate the populations of such schools in a time period required to reduce, or minimize, exposure and protect the safety and health of the children.

a). This contention is withdrawn.

b). The school personnel at each of the subject schools lack the training and qualifications to supervise and administer said and comfort to school children, especially school children in the elementary schools, during evacuation and housing in reception sites during the emotional trauma occasioned by the emergency and evacuation, or to possess, control, supervise and administer the thyroid blocking agent, potassium iodide, as required, to such children.

Specifically.

1]. Each of affected school districts have only one nurse on staff. No member of any school district staff is trained to deal with emotional shock or trauma occasioned by evacuation and separation, especially of young children, from parent. [No plan provision].

2]. Ohio has employed the policy that it will administer potassium iodide to emergency workers only and not to the general public. Ohio has made no provision whatsoever to administer potassium iodide to the sensitive and vulnerable group, the child. Ohio will not monitor children or adult for a maximum period of 12 hours at reception site to determine whether such individuals have been contaminated, a period too long to protect the health and safety of the public, especially the child, and at that delayed period (12 hours) the administration of potassium iodide would be of little effect. Kentucky will administer potassium iodide to emergency workers and to the general public, including children. The Kentucky plan has no provision for the implementation of the administration of potassium iodide and unless administered early its effect is diminished. No plan provides for the timely administration of potassium iodide to school children. The plan as drafted and to be implemented provides no reasonable assurance for the timely administration of potassium iodide to school children by school personnel or other emergency resource workers and as such there is no

reasonable assurance that the safety and health of children will be protected in the event of contamination. [Ohio Plan, §III, Letters of Agreement, letter 14; Clermont Plan, §II-B, Emergency Response Support, p. II-B-1 (no plan provision); Campbell Plan, Basic Plan, V-8; Annex F, Protective Actions, p. 7, F-11-1; Pendleton and Bracken Plans comparable to Campbell Plan].

c]. The respective school districts do not possess a sufficient number of buses for a timely and orderly transportation from the school to a receiving site during evacuation.

Specifically.

1]. The New Richmond School District has 17 buses and a student population of 2,562 students. The schools located in this district are at three different sites. The current fleet of buses requires that the student population being bused to or from school by each bus traveling three routes for each transportation of students, requiring that the bus be in transit for one hour each morning and evening routes. Monroe and Pierce Elementary students would be evacuated to the receiving site first and then return of buses for evacuation of the student population at the New Richmond site. From boarding of buses to the receiving site at Glen Este and return would consume approximately one hour before commencement of the boarding of the New Richmond school population, total evacuation time for the last students to be evacuated and out of the 10-mile zone would be approximately four hours. The number of buses necessary to timely and promptly evacuate the New Richmond District

school population would be 43 buses. New Richmond is 26 buses short of the required number to effectively evacuate the school children of this district. The plan as implemented has no assurance, reasonable or otherwise, that school children can be effectively evacuated in a safe and timely manner.

2]. Bethel-Tate School District has 12 buses and a student population of 1900. The schools within the district are located at one site. The current fleet of buses requires that each bus transport students on two trips, morning and afternoon. Approximately one-half of the student population would be evacuated to Goshen schools and bus return before the remaining population could be bused. The total time for evacuation would be approximately three hours. The number of buses necessary to evacuate the student population of this district would be 31 buses. Bethel-Tate is 19 buses short of the required number to effectively evacuate the school children of this district. The plan as implemented has no assurance, reasonable or otherwise, that school children can be effectively evacuated in a safe and timely manner.

3]. Buses sent from other districts can not timely evacuate the children at the two involved Ohio school districts because of the time requirements for transportation of those buses from original site to the plume school site and the circumstances of the necessity to utilize those buses for the evacuation of the students located at the receiving sites to

to afford reception of the evacuees, adult and school child. [No plan provision, Ohio or Clermont Plans; see limited discussion, Clermont Plan §II-I, Protective Response, p. II-I-5; §III-A, County Agencies (Gen), p. III-A-2, §III-C, County School Districts, pp. III-C-1 through 3 and 5].

4]. The Campbell County School District has nine schools at various sites, including A. J. Jolly Elementary approximately 2 miles from the Zimmer Station, it has 60 buses, 25 of which are 8 years or older and subject to mechanical failure, and a student population of 6,111 students. Students are transported to and from school in morning and evening double and triple routing. More than half of the student population would be required to remain at school while the first evacuees would be transported to a reception site and the buses returned to the schools to continue evacuation. 62 additional buses would be required to provide timely and safe evacuation of the students in the affected area. In addition to the afore-stated buses, the district is required to utilize two lift buses for handicapped children, each bus required to make two trips. No other buses would be available of any type to accommodate the evacuation of the handicapped children in a timely and safe manner. The time required to evacuate the student population would be approximately 5 hours. The plan as implemented has no assurance, reasonable or otherwise, that school children can be

effectively evacuated in a safe and timely manner. [Campbell Plan, Basic Plan, pp. II-4, 7 and 8, V-5,6 and 11; Annex C, Notification and Warning, p. C-4; Annex F, Protective Actions, p. F-9-2].

d]. The respective school districts do not possess either the capability or the number of buses necessary to afford transportation for the evacuation of school children where the emergency evacuation arises during bus transportation of children for the commencement or termination of the school day, because of the bus routing, multiple routes and trips, and a portion of the children being located at the school site and the remaining children being transported in the available buses.

Specifically.

1]. The schools involved in the New Richmond and Bethel-Tate School Districts of Ohio and the Campbell County School District of Kentucky have no means of communication to bus drivers while the driver is enroute. No present state or county plan presents a reasonable assurance or could be capable of implementation where students have been received at each school site following the first route trip and while the buses and drivers are in the course of picking up students preparatory to transporting them to school and evacuation is ordered and there is no present ability to contact the drivers and to direct them to transport the students currently on the buses to a receiving or

other site, during which time the driver would continue on his normal route and there would be no provision for the summoning of those buses to transport the students required to be evacuated to a receiving site.

2]. No other school district contiguous to the involved school districts could dispatch buses to the three affected districts because of utilization of their respective fleet of buses and the inability to communicate with their drivers to advise discharge of their passengers.

3]. The converse of 1] and 2] would apply during the afternoon initial routings where a portion of the student population would be on buses and the remaining student population at school without bus facility.

4]. The evacuation times set forth in the specified paragraphs of Contention 21 c] would be substantially increased and for which there is no plan or its implementation capable of presenting an assurance, reasonable or otherwise, that the affected school children could be timely and safely evacuated from the affected schools. [No plan provision].

e]. The inability of the respective school districts to summon buses to school sites in a prompt and timely manner, or provide standby buses where school evacuation is required during the course of the school day, the buses being located and stationed at various sites, unattended by drivers and the inadequate and ineffective means, or no means, of communication to drivers to advise of the emergency and to require bus response to the subject school to commence evacuation.

Specifically.

1]. The buses utilized for student transportation of pupils in the New Richmond and Bethel-Tate School Districts of Ohio and the Campbell County School District of Kentucky are maintained by their drivers at the driver's residence or other parking area, in which the buses are parked during the school day offsite of the affected schools within the respective districts. Upon notification that it is necessary to conduct an evacuation of school children there are no means to assure the contact of all drivers to summon the buses to the school sites, except as such drivers could be reached by telephone at their homes or other normal place during the non-driving period of the school day. Where the driver could not be contacted and instructed to drive the bus to the school site, that bus would be removed from the transportation means of evacuation. School bus drivers during non-driving school hours are involved in other modes of employment, including farming, and in leisure pursuits, during which time they may not be accessible by telephone contact. The use of pagers to summon drivers are inadequate for transmission and notification over a distance of 12 miles and shopping areas and other areas for indulging in leisure pursuits, and areas in which one might be conducting business are beyond the 12-mile range for paging. There is no provision in any plan that provides for notification to drivers

and as such there is no plan provision presenting reasonable assurance that buses can be summoned to the school site during an emergency.

2]. The location of school buses during the school day ranges from 5 to 15 miles from the school site and upon notification to the driver an approximate hour is consumed from the point of advising that evacuation is being ordered to the point that the notified driver arrives at the school site to commence transportation of evacuating children.

3]. None of the three school districts have the facility or the relationship with their respective drivers to park and maintain school buses at each respective school site. This circumstance removes any reasonable assurance that students can be timely and safely evacuated from school sites during a radiological emergency. [No plan provision].

22. This contention is withdrawn.

23. The characteristics of the Emergency Planning Zone portions of Clermont County, Ohio and Bracken, Pendleton and Campbell Counties, Kentucky is such that no adequate, effective and positive education, training and advice to the public can be presented for the public's responsive, orderly and timely evacuation in the event of accident.

Specifically.

1]. The affected population of the involved counties ranges in education from elementary education to University trained and within the five-mile radius of the Zimmer Station

is rural, farming and factory employed populace. Flooding circumstances and being within the tornado belt, the population has been instructed by various means as to protective actions to be taken in the event of flood and in the event of tornado, as well as the use of sirens and other types of warning device, including door-to-door notification. In each situation there has been a large segment of the population who telephone local police agencies to inquire if the siren is actual or for drill, notwithstanding the educational measures taken; and who upon being advised by door-to-door notification nonetheless neglect to take protective action until forced to do so by police authority. Inquiry to police agencies have overloaded the trunk lines within the community serviced by an assigned number of telephone trunk line. [No Plan provision].

2]. Times necessary to take protective action during flood and tornado have been greatly in excess of estimated times because of the reactions of a large segment of the population. [No plan provision].

3]. The "Circle of Safety" as the mode of educating the affected population as to the nature of nuclear power, radiation, protective action, preparation is beyond the capabilities of the majority of the population within the affected area. Based on the average number of sentences per 100 words and the average number of syllables per 100 words the publication, in accord with Fry's Readability Graph, is within college level readability. The publication is too involved, too long and too sophisticated in its writing style to be either read or understood by a large segment

of the involved population. The publication's style is comparable to text-book industry publications which do not interest the average reader and due to length frustrate the average reader and deters complete reading. Further, the publication in preliminary sentences attempting to minimize the potential hazards directs the average reader to stop reading those portions because the reader is initially informed that the matter will probably not occur and thus is extraneous information. The publication has no reasonable assurance of being read, understood or educating the population within the EZP, and thus has no educational value of informing the affected public of the matters necessary to be known by that public to properly response to an emergency at the Zimmer Station. [Clermont Plan, §II-F, Public Information, Attachment F-1, pp. II-F-3, et seq.; each of the Kentucky counties have the same publication present in their plans].

4]. The plans provide no reasonable assurance of the information to be disseminated to the public, permanent and transient, (to be mailed to all permanent population, placement in local telephone books, or the installation of signs) will be sufficient to inform or in its method of dissemination (style), will not minimize the hazards and deter the education value of the material, or being written in such a manner that it is not readily understood by the public, e.g., "Circle of Safety." [Clermont Plan, II-F, Public Information, pp. F-1 and 2; Campbell Plan, Basic Plan, p. V-2; Annex J, Public Information, pp. J-5 and 6; same information contained in Pendleton and Bracken Plans].

5]. There is no plan provision, or adequate assurance

presented, as to the method, manner and text of the publications to be posted for the information of the transient population, particularly those visiting parks, historical sites and engaged in recreation pursuits on and near the Ohio River, all of which are within the affected area. [No plan provision].

24. Within the EPZs of the Zimmer Station, inclusive of a 50-mile radius, there are inadequate medical facilities to afford the required bed space, medical and para-medical personnel, requisite medication, screening, treatment and isolation of persons sustaining radiological injury; and the absence of adequate emergency materials, supplies, equipment and vehicles necessary for the transportation of injured persons, injured onsite and offsite, during a radiological accident.

Specifically.

1). Clermont County and Cincinnati General Hospitals are the two Ohio hospitals which would provide inpatient treatment to radiologically injured individuals. The Central Ohio River Valley Association (CORVA) will provide guidance to those hospitals for development of disaster plans to include radiological emergency patient handling. Clermont County Hospital claims that it will treat radiological casualties and will institute procedures for radiation exposure treatment. Clermont County Hospital has 109 beds, but of that number would provide 45 beds by discharging ambulatory patients and transfer of others. Clermont County Hospital would transfer overage patients to Cincinnati General Hospital. Clermont County Hospital has not sought guidance from CORVA to the date of the filing of these revised contentions. Clermont County Hospital has not revealed its hospital plan for radiological treat-

ment. CORVA will be disbanded April 1, 1982. Clermont County Hospital has two full time radiologist and one radiotherapist, as a consultant, and two radiation monitors and sufficient decontamination equipment for minor radiation accidents. There is nothing to indicate that Clermont County Hospital has separate, segregated emergency facilities so that other patients are not contaminated. The plan as drawn and as to be implemented does not provide reasonable assurances that Clermont County Hospital can provide adequate facilities and personnel to treat radiologically injured individuals. [Clermont Plan, §II-K, Med & Pub Health Sup, p. II-K-1; §IV, Letters of Agreement, Clermont County Hospital to Conover, January 21, 1981].

2]. Other that noted in paragraph 1] above, no other information is presented by the Clermont Plan pertaining to Cincinnati General Hospital. [No plan provision].

3]. Campbell represents that three hospitals have the capabilities to treat radiological injuries: St. Luke Hospital; Cincinnati General and the University of Kentucky Medical Center (Lexington Kentucky, approximately one hour travel time from Campbell County); in which each has submitted a letter agreement. Only the letter from St. Luke Hospital is presented in the plan. St. Luke Hospital does not indicate its bed capacity or how many beds would be available to hospitalize radiologically injured patients. This hospital has two radiology technicians and some monitoring equipment. Isolation of contaminated patients is not indicated, nor is the presence of separate, segregated emergency facility. The plan as drawn and as to be implemented does not provide reasonable assurances that St. Luke Hospital

can provide adequate facilities and personnel to treat radiologically injured individuals. [Campbell Plan, Annex H, Medical & Public Health, p. H-2; Annex P, Inter-Government & Private Relations, letter St. Luke Hospital to Flynn].

4]. Other than noted in paragraph 3] above, no other information is presented by the Campbell Plan pertaining to Cincinnati General Hospital or University of Kentucky Medical Center. [No plan provision].

5]. Ohio applies the policy that it will not administer potassium iodide to the general public, including children. This position taken by the State of Ohio and its political subdivision of Clermont County, removes any consideration of a reasonable assurance being presented by state and county plans and the failure to implement any procedure for the prompt administration of potassium iodide to block radioactive iodine intake to the thyroid gland, presents a substantial departure from required protective action to safeguard the health and safety of the exposed population. [Ohio Plan, §III, Letters of Agreement, letter 14; Clermont Plan, §II-B, Emergency Response Support, p. II-B-1 (no plan provision)].

6]. The life squads present in Clermont County, Ohio have no training for the examination and determination of persons contaminated and to take required safeguards to exclude such individuals from non-contaminated members of the public; and the members of the respective life squads in the plume area of Clermont have no training or qualifications in rendering aid to individuals contaminated and individuals sustaining radiological injury. The

members of the plume area life squads in Clermont County may or may not respond as emergency resource personnel based upon priority commitments to one's vocation and the needs to assist one's family during the evacuation process. The Clermont Plan in its implementation of providing volunteer life squads to assist and render aid to radiological injured and contaminated individuals provides no reasonable assurance that such volunteer will in fact volunteer one's services during an emergency. [No plan provision].

7]. The monitoring of evacuees by local police and fire personnel at relocation centers within 12 hours of the evacuees arrival is inadequate to screen, separate and isolate contaminated individuals, providing exposure by the contaminated person to the population at the relocation center. There are no provisions set forth and no implementation of training to police and fire personnel to properly monitor evacuees at relocation centers, to screen evacuees and isolate those contamination or to decontaminate such individuals or the facilities for decontamination. There is no provision for monitoring of persons present at relocation centers before such persons exit the premises. [Clermont Plan, §II-I, Protective Response, p. II-I-4; otherwise no plan provision].

8]. Campbell County provides no plan or its implementation for the timely administration of potassium iodide as to the manner, place, administration and timely presentation of such blocking agent to the general public, and as such there is no reasonable assurance that the blocking agent can be systematically and timely administered to the public. [Campbell Plan, Basic Plan,

p. V-2: otherwise no plan provision].

9]. Campbell County does not provide for any monitoring of plume exposed persons, except that persons transported by school buses who do not wish to go to a reception center will be decontaminated at Northern Kentucky University. The absence of any reasonable assurance that contaminated persons will be monitored and decontaminated, as necessary, fails to provide reasonable assurance that monitoring of persons and decontamination procedures will be implemented. [Campbell Plan, Annex F, Protective Actions, p. F-9-1].

10]. The procedures in Clermont and Campbell Counties to acquire lists of disabled, handicapped and senior citizens requiring special transportation fails to provide reasonable assurance by the plan or in its implementation that all such individuals are identified and that adequate vehicles and personnel are available and dependable to enter the plume exposed area to evacuate such individuals. [Clermont Plan, §II-B, Emergency Response Support, p. II-B-1; §II-I, Protective Response, p. II-I-5; Campbell Plan, Annex F, Protective Actions, p. F-9-1].

25. The monitoring devices selected and their placement offsite for the monitoring of releases, anticipated and accidental, of radioactive materials, including plume exposure in the event of accident, as to the location are inadequate to protect the health and safety of the population of Clermont County, Ohio, and as the same applies to the monitoring of releases into the Ohio River, and other sources of water for human consumption, as the same affects drinking water, plant and animal life of that

waterway and area within the plume exposure which are subsequently consumed by the population of the county; and the inability of such monitoring to adequately and timely inform the applicant and local and state agencies and related dissemination of such information to and for the protection of the public's health and safety.

Specifically.

1]. The agreement between the applicant and the City of Cincinnati to provide monitoring equipment and related information to the City of Cincinnati provides no reasonable assurance from the said agreement or the county and state emergency response plans that such information obtained by the applicant or the City of Cincinnati will be disclosed, or promptly disclosed to the responsible personnel of Clermont County, Ohio, and there is no reasonable assurance that the responsible personnel of Clermont County would undertake prompt and protective action upon such advice. [No plan provision].

2]. The Clermont County Health Department has failed to establish a radiation health unit and will continue into the future to fail to establish such unit. The local health department has no plan to collect and will not in the future collect any baseline health data on neonatal hypothyroidism, infant mortality and cancer incidence for Clermont County and the department has no desire or capability to commence to collect such data, to establish the mile-radius of the Zimmer Station as a boundary for such data collection or the establishment of baseline data for water, milk, fish, vegetation form and aquatic

organisms. The department has failed to provide any input into the preparation of the Clermont County emergency response plan as the same relates to departmental responsibility and cooperation with other county agencies, especially in the monitoring of liquids and solids ultimately consumed by humans. The department has failed to institute any plans, and will continue to do so in the future, for the creation of training programs for local physicians and other health care personnel in the management of radiation injuries or the monitoring thereof. The department has failed and will continue to fail into the future to gather data pertaining to Zimmer employees, after the station is operational, to determine radiation exposure from both occupational and non-occupational (medical and dental) as a continuing monitoring program. The department has failed and will continue to fail to be prepared to institute a population registry, in the event of nuclear accident, for monitoring of the health effects to the population within the 10-mile radius of the Zimmer Station and to compare monitoring information with previously prepared baseline data. The department has failed and will continue to fail to develop a plan for placement of environmental monitors within the 10-mile plume exposure pathway and within the 50-mile ingestion pathway zone for monitoring the radiation to water, milk, vegetation form and livestock subsequently consumed by humans, or for sample collection and analysis during normal operation of the Zimmer Statation and after an unscheduled radiation release. The department has failed and will continue to fail to collect data in its monitoring of milk, fish and agricultural products intended for human consumption. The combined and individual failures

to institute, or into the future institute, monitoring programs for the health and safety of the affected population fails to provide or implement reasonable assurances that monitoring will be conducted and appropriately analyzed to protect the health and safety of the population. [No plan provision].

3]. The Clermont County Board of Health and the Clermont County Cooperative Extension Service are jointly responsible for the monitoring and evaluation of the impact of radiation release upon county farm products and livestock and based upon such monitoring and assessment will institute protective actions pertaining to milk and livestock feed control. The plan provides no procedure and no procedure can be implement with reasonable assurance for the protection of the public that livestock and dairy cattle within the monitoring range can be provided stored, closed feed, removed from pasturing, that facilities exist at the respective farm to remove livestock from field and house them and to store in sufficient quantity feed in closed containers, and to monitor that such protective agricultural practices are followed at the farm level. [Clermont Plan, §III-A, County Agencies (Gen), pp. III-A-3 and 10; otherwise no plan provision].

4]. There is no provision for the monitoring of milk produced in the EZPs and transported in bulk to a processing and bottling facility for distribution to retail groceries and subsequent human consumption. [No plan provision].

26. The monitoring equipment, onsite and offsite, is inadequate for the independent monitoring by local agencies, in

conjunction with applicant's monitoring, for the purpose of protecting the public's health and safety in radiation release, radioactive effluents and plume exposure in the emergency situation and the interest of the public in such information.

Specifically.

1). The City of Cincinnati, as reflected by its agreement with applicant, is provided with monitoring equipment and delayed information pertaining current monitoring readings. Clermont County has no such equipment or the ability to be informed of current radiation releases from the Zimmer Station, whether airborne or discharged into the Ohio River. To provide reasonable assurances for the protection of the population's health and safety it is necessary that Clermont County be provided monitoring equipment and sending devices to exercise a failsafe judgment on Zimmer personnel given access to such monitoring devices so that local personnel are simultaneously provided the information presented to Zimmer personnel and can make independent judgment as to the potential threat to the public's health and safety and to promptly institute protective action to safeguard the interest of the public. The absence of simultaneous and identical information to provide independent exercise of judgment by local and Zimmer personnel creates a credibility problem borne of recent dissemination of incorrect information to the public and local and state agencies, failure to take prompt protective actions and ultimate detriment to the health and safety of the public (e.g., lessons learned at Three-Mile Island, and still being learned), which removes reasonable assurances that

the best interest of the public will be observed, including the health, safety and protection of that public. [No plan provision].

27. The presence of appropriate type and placement of monitoring devices at schools located within the 10-mile radius of the Zimmer Station, the absence of trained local and school personnel to observe such devices and to alert and advise school personnel to take appropriate protective action, as necessary, in which such devices must timely advise of dosage exposure sufficient under applicable standards to require protective action to safeguard the health and safety of children so exposed to excessive dosage in the respective schools.

Specifically.

1]. School-age children are particularly susceptible to untoward health effects from radiation exposure. A.J. Jolley Elementary School is approximately 2 miles from the Zimmer Station, St. Peter & Paul Elementary School is approximately 4 miles from the Zimmer Station, Monroe Elementary School is approximately five miles from the Zimmer Station, Grant's Lick Elementary School and New Richmond Elementary, Middle and High Schools are approximately six miles from the Zimmer Station, and the remaining schools are within the plume exposure pathway of the Zimmer Station. Monitors inspected monthly and delayed analysis does not provide any reasonable assurance that protective action can be taken to remove school children from the radiation effects previously received. It is necessary for the protection of the health and safety of this susceptible group of the plume exposure population that monitors be installed at each school with trained personnel given

the opportunity for daily inspection of monitors indicating current dose levels so that where dose level exceed tolerable levels immediate protective action can be sponsored to adequately protect the school child. [No plan provision].

28. The absence of trained local and state personnel to conduct surveillance of monitoring devices installed in local agencies as contended in revised contention 26 to alert and advise the public by independent judgment of excessive dosage amounts under applicable standards of radiation releases, radioactive effluents and plume exposure in the emergency situation; such equipment to be installed in the affected counties EOCs; the necessity for 24-hour surveillance of onsite information equipment as contended in revised contention 26 to exercise independent judgment in determining the presence of an unusual event, alert, site emergency or general emergency developing or in being at the site, for simultaneous and protective action necessitated by such information as independently assessed by local personnel and the institution of prompt and timely protective action to minimize and reduce the exposure by the public to reasonable assure the public's health and safety.

Specifically.

1]. The reasons presented and identified in revised contention 26 are incorporated herein. Upon obtainment of the requisite equipment it is necessary that a continuous staff be present at each affected EOCs for continuous monitoring of the Zimmer Station's activities, exercising independent judgment and initiating protective action as warranted by such information for

the public's benefit and protection. This revised contention further provides for the opportunity of staff at the local EOC to independently judge the severity of the event in progress and not to rely upon the judgment factor and potential bias of applicant in hesitating to order evacuation and to permit the local staff to institute prompt protective action for the public's health and safety. [No plan provision].

29. This contention is withdrawn.

30. The absence of applicant's furnishing, or alternatively, inadequate furnishing, to the plume exposure pathway EPZ population equipment and gear, including clothing, for use during an emergency and ensuing evacuation for that population's protection against radiological exposure, including whole body and inhalation, and such failure, or inadequacy, as the case may be, subjects the public to health and safety dangers and potential injury.

Specifically.

1). Exposure to radiation is a known hazard. The potentially for such exposure occasioned by severe accident is no longer open to debate. The topography and land characteristics of the plume exposure area in both Ohio and Kentucky constitutes a maze of roadways characteristic to rural areas impeding safe and prompt evacuation presenting traffic congestion and potential vehicular mishap. The area is subject to road impassibility in part or in whole for short and long durations due to flooding, snow, ice, and fog conditions during which an evacuation could be mandated but prompt evacuation impossible because of roadway conditions, coupled with limited resources for snow and ice removal

and police personnel to control traffic. Issuance of protective garments and masks identical to that issued to emergency worker's for their protection, including issuing dosimeters to the population with provision for periodic charging, would provide the reasonable assurance that the public would be protected during emergency situations requiring evacuation and exposure to radiation to minimize or remove untoward health effects to that population. The population has never been given the option of whether it desired to accept the risks apparent from the presence of a commercial nuclear power facility within its community and that community is entitled to each and every safeguard available to assure its protection against injury and to provide for its health and safety. [No plan provision].

31. Clermont and Brown Counties, Ohio, and Bracken, Pendleton and Campbell Counties, Kentucky, do not possess the requisite funds or the financial means for the purchase, installation and maintenance of the required equipment, the requisite personnel, the required training of its personnel or the creation of the necessary EOCs to provide adequate protection for the health and safety of the public and the applicant must be responsible for the expense necessary to achieve a state of emergency preparedness.

Specifically.

1). The applicant is required to provide local and state plans which provide reasonable assurance that appropriate protective action can and will be instituted and implemented to safeguard the health and safety of the public. The involved counties, their respective political subdivisions, including

school districts, do not have the requisite funds to provide the equipment and personnel necessary to present reasonable assurance that emergency resource plans can be effectively implemented for the protection of the public. Clermont County will be entitled in the future to the collection of taxes from the operation of the Zimmer Station. No other county will receive any tax benefit from that operation. Clermont County would receive the same tax benefit from a coal burning plant as from a nuclear powered reactor, without the necessity for its involvement in the creation of emergency plans and the training of its several agencies and the obtainment of items of equipment to implement that plan. The responsibility to provide a plan which reasonably assures the protection of the public and which is capable of implementation is that of the applicant. In order to provide the necessities to implement the plan to the full capability of providing a reasonable assurance that the public is adequately protected, the applicant must provide that equipment which the county, its agencies and the school district cannot. Where school evacuation cannot be implemented in a timely and safe manner for the protection of the affected school children because of an inadequate number of school buses, drivers, radios, dedicated telephone trunk lines, and the school district can not provide the necessities because of lack of funds, the responsibility shifts to the applicant to provide the equipment where that equipment is necessary to implement the workability of the plan. The foregoing illustration is equally applicable to each agency involved in the implementation of the emergency plan. The absence of

an item of equipment for which the plan cannot be implemented renders the plan inadequate. (No plan provision).

32. The adequacy of onsite and offsite organizations for coping with emergency and the adequacy of emergency preparedness must be evaluated in a test conducted prior to commencement of the operation of the Zimmer Station as a joint exercise-drill involving applicant's emergency resource personnel and partial public participation, including partial school participation, within the plume exposure pathway of the EPZ, demographical, topographical, accessible site and evacuation routes and local jurisdictional boundaries being considered and examined, to determine the adequacy of implementing procedures and methods, the testing of emergency equipment and communication networks and timing, from which and due to the land characteristics, personnel, equipment and other relevant factors the state of emergency preparedness will not meet the required standards for the protection of health and safety of the populace within the EPZ in an emergency circumstances.

1]. The proof of the best of designed battle plans is the battle itself. Short of the battle, maneuvers may provide some indication of the worth of the plan. Evacuation time estimates, deploying of emergency resource personnel, ability to cope correctly and promptly with a given situation, and the use of communication systems provides limited insight to the capability of the plan to correctly function. The critical aspects of the respective local plans is the discipline of the public to follow the direction of the protective action announced; the most demanding being evacuation, the conduct of that public in evacuation, the

actual time for evacuation — not the estimated time — of that population, the ability of the school to respond, summons its buses and the times required, as actual times, to board buses and the buses to evacuate the student out of the plume area, the deployment of police and the ability of that unit to control traffic. A limited portion of the population in the sector most difficult to evacuate in each county should be selected (accepting volunteers if necessary), each school should activate its evacuation, at the most difficult time to commence an evacuation, with removing the students from the school and boarding the bus, stopping the timing and discharging the students from the bus, and then permitting the empty bus to travel its evacuation route to conclusion of the evacuation of all students by mock boarding and actual transportation of the buses, provide directions to the public and schools, permit the police units to man the access control sites, summons off-duty police officers, and observe by stop watch the times required for actual evacuation. If injury and mishap is a consideration prompting denial of such a drill, consider the consequences of an actual evacuation which fails to accomodate the time, direction and educational estimates. Unless a drill-exercise is performed to determine the ability to implement evacuation and determine the problems of land characteristics, ability of the public to respond, the ability of the schools to respond, and the ability of the emergency resource personnel to respond, there is no reasonable assurance that the plan as drafted is in reality capable of being

implemented. [No plan provision].

Dated: November 12, 1981



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: CINCINNATI GAS AND ELECTRIC :
COMPANY, ET AL. : DOCKET NO. 50-358
(William H. Zimmer Nuclear : APPLICATION FOR
Power Station) : OPERATING LICENSE

CERTIFICATE OF SERVICE

I hereby certify that a copy of Revised Contentions for Intervenor ZAC-ZACK, dated November 12, 1981, were posted in the U.S. Mails, postage prepaid for service upon the below named persons or agencies listed below, except those indicated by * which were delivered to the office of C G & E Co. for separate transmittal.

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