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 FACIL: 50-244 Robert Emmet Ginna Nuclear Plant, Unit 1, Rochester G 05000244
 AUTH. NAME: MAIER, J. E. AUTHOR AFFILIATION: Rochester Gas & Electric Corp.
 RECIP. NAME: CRUTCHFIELD, D. RECIPIENT AFFILIATION: Operating Reactors Branch 5

SUBJECT: Forwards assessment for SEP Topic II-1.B, "Population Distribution." Low population zone & population ctr distance conforms w/ distance requirements of 10CFR100 & current licensing criteria. No addl SEP review required.

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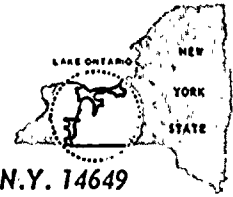
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JOHN E. MAIER
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April 15, 1981



Director of Nuclear Reactor Regulation
Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch No. 5
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: SEP Topic II-1.B, "Population Distribution"
R. E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Crutchfield:

Enclosed is the Rochester Gas and Electric assessment for SEP Topic II-1.B, "Population Distribution". This assessment for the R. E. Ginna site is modeled upon the NRC's assessment of this topic for Consumers Power Company's Palisades plant, issued by letter from Dennis L. Ziemann, NRC, to Mr. David Bixel, CPCO, dated November 27, 1979.

Very truly yours,

John E. Maier
John E. Maier

Attachment

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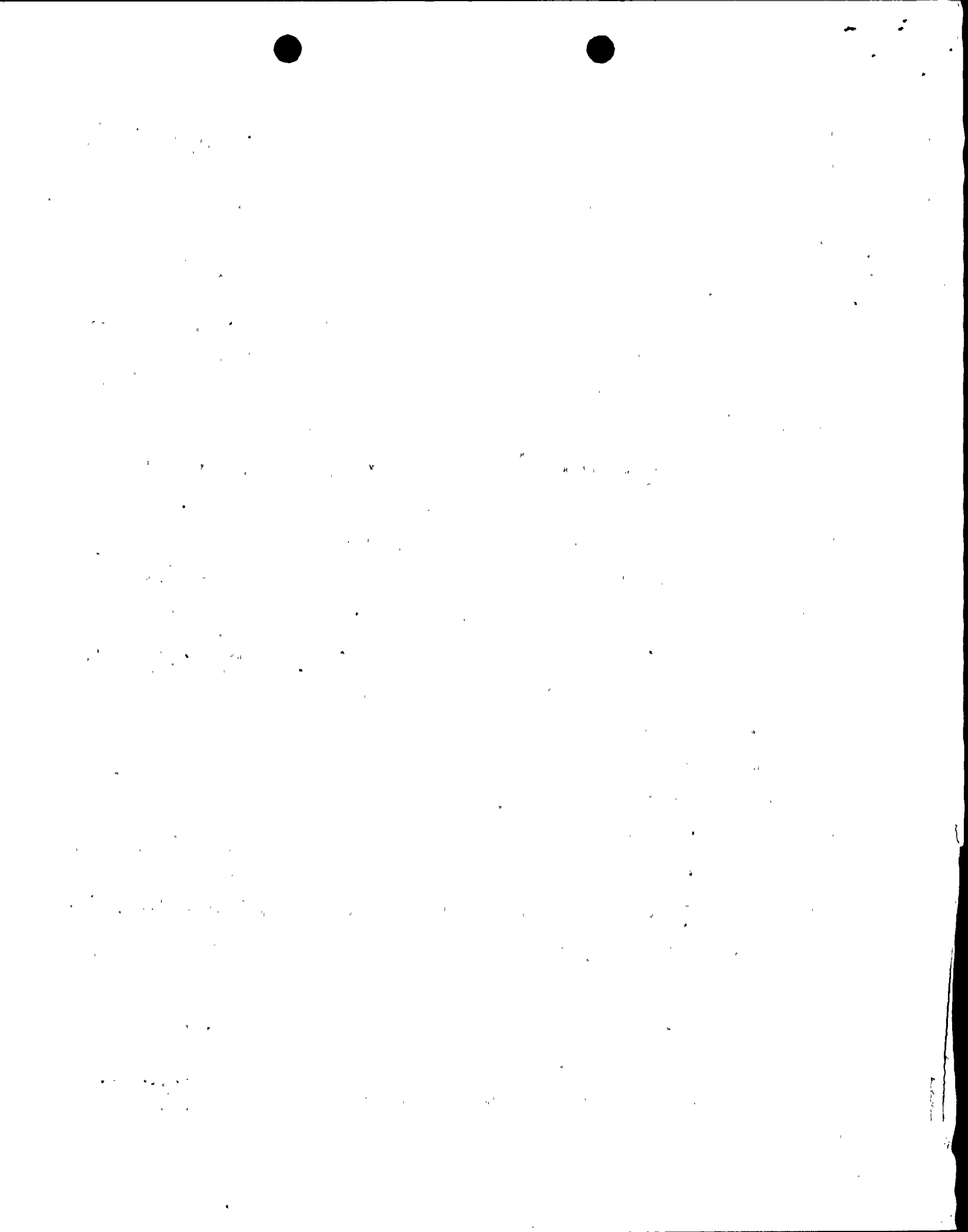


Attachment

TOPIC II-1.B - Population Distribution, R. E. Ginna

The safety objective of this topic is to ensure that the previously-established low population zone and population center distance specified for the site are compatible with the current population distribution, and are in accordance with the guidelines of 10 CFR Part 100. This review is conducted in accordance with the guidance given in Standard Review Plan Section 2.1.3. The capability of the plant to meet the dose criteria of 10 CFR Part 100 at the exclusion area boundary and low population zone will be evaluated in the Design Basis Event phase of the SEP review. The adequacy of emergency preparedness planning for the area surrounding the plant including the low population zone is being assessed by the Commission in a separate review effort.^{5,6,11,12}

The R. E. Ginna site is in the township of Ontario, in the northwest corner of Wayne County, New York, on the north shore of Lake Ontario about 20 ENE of the center of the City of Rochester and 40 WSW of Oswego. The land surrounding the site is primarily of an agrarian nature and sparsely populated. There are no substantial population centers, industrial complexes, transportation arterials, parks, or other recreational facilities within a three mile radius of the Ginna site.² The City of Rochester is the largest population center within a 50 mile radius of the site (241,539 people, with 701,745 in the metropolitan area⁷). The nearest community with a population of 1,000 or more is the Town of Ontario with its center located about 3½ miles from the site. The preliminary estimated 1980 census for the Town of Ontario is 7,452.⁷



To develop the Wayne County and Monroe County Radiological Emergency Response Plans for the R. E. Ginna Nuclear Power Station, a recent survey of the population within a five-mile radius was completed. Figure J-2 from the Wayne County Radiological Response Plan, reproduced as Figure 1 of this evaluation, details the population within 5 miles of Ginna, based on preliminary 1980 population estimate. RG&E estimates that 10,864 persons reside within five miles of the plant, a density of 277 persons per square mile assuming that half of the area within five miles is land. (It should be noted that this figure compares favorably with the 1980 population estimate of 10,934 persons shown in Figure 2.4-2 of the Ginna FSAR, which was published in 1968.)

Other than the residents of the area, there are no large groups of transients within five miles of the site. The only parks near the site are Webster Beach Park in Monroe County, approximately 6 miles west of the plant site, and the B. Forman Park in Wayne County, approximately 8 miles east of the plant site. There are no federal recreational facilities in the area. There are no state parks, public campsites, or special use areas within ten miles of the plant site.² Wayne County does have a migrant labor population, primarily for apple picking, during the June-October season. Approximately 115 Farmworker camps of five or more persons are scattered throughout Wayne County⁸, with a total population of about 4400 migrants. Information from Rural New York Farmworker Opportunities shows that there are only 12 camps, with about 130 migrants, located in the vicinity of the Ginna site.¹⁰

The nearest population center to the Ginna site containing more than 25,000 residents is the "Rochester urbanized area", whose eastern boundary is about ten miles from the site.² The only other population center of more than 25,000 persons is the City of Auburn (population 32,442),⁷ located more than 40 miles SE of the site.

The low population zone specified for the Ginna site is the area within a 3 mile (4,827 meter) radius of the plant.⁹ A review of current population estimates and projected growth estimates indicate that the population growth in the area since the plant received an operating license in 1969 has been modest, and this trend is expected to continue. No population center of 25,000 residents has been developed, or appears likely to develop, closer than the eastern boundary of the Rochester urbanized area.

RG&E concludes that the low population zone and population center distances specified for the Ginna site is in conformance with the distance requirements of 10 CFR Part 100 in that the population center distance is more than one and one-third times the distance from the reactor to the outer boundary of the low population zone (10 miles vs. 3 miles).

This completes the evaluation of SEP Topic II-1.B for the Ginna site. Since the site conforms to current licensing criteria, no additional SEP review is required.

References

1. Rochester Gas and Electric Corporation, Robert Emmett Ginna Nuclear Power Plant Unit No. 1 - Final Facility Description and Safety Analysis Report (FSAR), Sections 2.2 and 2.4.

2. Rochester Gas and Electric Corporation, R. E. Ginna Nuclear Power Plant Unit No. 1, Environmental Report, Volume 1, Sections 2.1 and 2.2.
3. Nuclear Regulatory Commission NUREG-75/087, Standard Review Plan, Section 2.1.3, September 1975.
4. Code of Federal Regulations, Section 10, Part 100 (10 CFR 100).
5. Wayne County Radiological Emergency Response Plan, Draft Rev. B, November 1980.
6. Monroe County Radiological Emergency Response Plan Draft, Rev. B, November 1980.
7. Preliminary Report, 1980 Census of Population and Housing, New York, published by the Bureau of the Census, U. S. Department of Commerce, February 1981.
8. Conversation with the New York State Health Department, April 13, 1981.
9. Safety Evaluation by the Division of Reactor Licensing, U. S. Atomic Energy Commission in the Matter of Rochester Gas and Electric Corporation Robert Emmett Ginna Nuclear Power Plant Unit No. 1, Docket No. 50-244 (SER), Section 2.1, June 19, 1969.
10. Letter, Thomas J. Harris, RNYFO, to George Wrobel, RG&E, April 10, 1981.
11. Rochester Gas and Electric Corporation, Ginna Nuclear Station Radiation Emergency Plan, Proposed January 1981.
12. New York State Radiological Emergency Preparedness Plan, December 1980.

