

AN APPLICATION BY THE DEPARTMENT OF : POWER FACILITY  
TRANSPORTATION FOR A CERTIFICATE OF  
ENVIRONMENTAL COMPATIBILITY AND PUBLIC : EVALUATION COUNCIL  
NEED FOR THE PROPOSED REVISION TO THE  
TELECOMMUNICATION TOWERS LOCATED AT  
CONNECTICUT TRANSIT PROPERTIES IN :  
HARTFORD AND NEW HAVEN. : May 20, 1981

F I N D I N G S O F F A C T

I. PROCEDURES

1. The Department of Transportation applied to the Power Facility Evaluation Council on March 12, 1981 for a certificate of environmental compatibility and public need to replace telecommunication towers located on Connecticut Transit Properties in New Haven and Hartford and to install microwave dishes and UHF antennas on the replacement towers. (App1. p-1)
2. The fee of \$500.00 accompanied the application. (Record)
3. The application was accompanied by proof of service as required by section 16-50ℓ(b) of the General Statutes of the State of Connecticut. (Record)
4. Affidavits of newspaper notices as required by statute in section 16-50ℓ -1 of the regulations of Connecticut State Agencies were also filed. (Record)
5. Council members and staff made an inspection of the proposed site on April 15, 1981. (Record)
6. Pursuant to section 16-50m of the General Statutes of the State of Connecticut, the Power Facility Evaluation Council, after giving due notice thereof, held public hearings April 15, 1981 at the Hall of Records Hearing Room, 200 Orange Street, New Haven, Connecticut at 6:30 P.M. and at the Department of Public Utility Control Hearing Room, No. 565A, State Office Building, Hartford, Connecticut at 8:00 P.M. (Record)
7. The parties to the proceedings are listed in the Decision and Order which accompanies these findings. (Record)

8. The following state agencies filed written comments with the Council pursuant to section 16-50j(f) of the General Statutes of the State of Connecticut: the Department of Economic Development, the Department of Environmental Protection, and the Department of Public Utility Control. (Record)

## II. ENVIRONMENTAL

9. The Department of Transportation proposes to replace existing telecommunication towers located on the roofs of Connecticut Transit buildings at 53 Vernon Street, Hartford, and 470 James Street, New Haven. (App1. pp.-2,5)
10. The existing towers are guyed, approximately 70 feet tall, 12 inches wide, and support UHF antennae. (New Haven transcript, p-8; Department of Transportation letter April 9, 1981 Attachment C and D)
11. The proposed towers will be guyed, approximately 70 to 100 feet tall, 30 inches wide, and each will support a 6 foot microwave dish antenna and a UHF antenna. (Tr. 6:30 P.M. p.-12, App1. pp.-2,5; Department of Transportation letter April 9, 1981)
12. The applicant, the Department of Transportation, requested the option of replacing the existing towers with towers no higher than 100 feet high because the tower vendor must insure the beam paths, and the vendor has not been selected. (Tr. 6:30 P.M., pp.-9-11)
13. Any electrical supply, fuel storage tanks, and radio equipment enclosures will be contained within the existing buildings. (Tr. 6:30 P.M., pp.-12-13)
14. The proposed tower sites are owned by the State of Connecticut. (App1. pp.-1,2,5)
15. The New Haven site consists of a large brick building used for operations, storage-warehousing, maintenance

and administration for a fleet of 220 buses. The site is 10.2 acres. The site and surrounding area are zoned for heavy industry. (Tr. 6:30 P.M., p.-13; Department of Transportation letter 4/9/81, p.-7)

16. The Hartford site consists of eight buildings and sub-buildings used for transit administration, operation, and maintenance activities. The site is 8.8 acres. The site and surrounding area are zoned multi-unit residences along Vernon Street, Broad Street, and Brownell Avenue, and residential office along Washington Street. (Department of Transportation letter 4/9/81, p.-7; Tr. 8:00 P.M., p.-10)
17. The facility proposed in New Haven will complete a microwave communication link between the James Street facility and a tower on West Rock in New Haven. The facility proposed in Hartford will complete a microwave communication link between the Vernon Street facility and a tower on John Tom Hill in Glastonbury. (Tr. 6:30 P.M., p.-10; Tr. 8:00 P.M., p.-19)
18. Alternate sites would not be sufficient because communication is needed to and from the dispatching points in both Hartford and New Haven. (Tr. 6:30 P.M., p.-15; Tr. 8:00 P.M., p.-12-17)
19. The proposed facilities will be useful to the State Police, Department of Health Services, Office of Civil Preparedness, and the Capitol Region Council of Governments. (Tr. 6:30 P.M., p.-18; Tr. 8:00 P.M., p.-14,15)
20. In the main dish field, the near field values of power density are calculated to be less than one milliwatt per square centimeter (mw/cm<sup>2</sup>). The power density at a maximum field point is calculated to be 0.85 mw/cm<sup>2</sup> at a distance of 16.4 feet. Between the plane of the feedhorn and the dish, the calculated power density of 1 mw/cm<sup>2</sup> is obtained at a distance of 20 inches from the horn opening. For the side and back lobes, a calculated power density of 1 mw/cm<sup>2</sup> is obtained at a distance of 4.5 inches from the feedhorn. The actual power

densities or distances to be expected will be less than the above calculated values due to transmission line losses. (Appl. Attachment B)

21. The actual power densities will be less than the OSHA power density limit of 10 mw/cm<sup>2</sup>, and less than the U.S. Bureau of Radiological Health density limit of 1 mw/cm<sup>2</sup>. (Appl. Attachment B)
22. The proposed Hartford facility will transmit at frequencies of 453.625/458.025 megahertz and 2.1 to 2.2 gigahertz. The proposed New Haven facility will transmit at frequencies of 453.725/458.725 and 2.1 to 2.2 gigahertz. (Record)
23. The proposed facility will not pose a hazard to the public health and safety. (Tr. 6:30 P.M., p.-16; Tr. 8:00 P.M., p.-13)
24. There are no known detriments to scenic, natural, historic, and recreational characteristics of the Hartford or the New Haven sites or in the surrounding areas. (Tr. 6:30 P.M., p.-14; Tr. 8:00 P.M., p.-11)