

SECTION V-D - DTV BROADCAST ENGINEERING DATA

FOR COMMISSION USE ONLY

File No. _____
SSB Referral Date _____
Referred By _____

Name of Applicant

Call Letters (if issued)

Complete Questions 1-5 of the Certification Checklist and provide all data and information for the proposed facility, as requested in Items 1-22, below. If an item is not applicable, enter N/A.

Certification Checklist: A correct answer of "Yes" to all of the questions below will ensure an expeditious grant of a construction permit. An answer of "No" will require additional evaluation of the applicable information in this form before a construction permit can be granted.

1. The proposed DTV facility complies with 47 C.F.R. Sections 73.622 and 73.623 in the following respects:
 - (a) It will operate on the DTV channel for this station as established in 47 C.F.R. Section 73.622. Yes No
 - (b) It will operate from a transmitting antenna located within 5.0 km (3.1 miles) of the DTV reference site for this station as established in 47 C.F.R. Section 73.622. Yes No
 - (c) It will operate with an effective radiated power (ERP) and antenna height above average terrain (HAAT) that do not exceed the DTV reference ERP and HAAT for this station as established in 47 C.F.R. Section 73.622. Yes No
2. The proposed facility will not have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding the applicable health and safety guidelines, and therefore will not come within 47 C.F.R. Section 1.1307. Yes No
3. Pursuant to 47 C.F.R. Section 73.625, the DTV coverage contour of the proposed facility will encompass the allotted principal community. Yes No
4. The requirements of 47 C.F.R. Section 73.1030 regarding notification to radio astronomy installations, radio receiving installations and FCC monitoring stations have either been satisfied or are not applicable. Yes No
5. The antenna structure to be used by this facility has been registered by the Commission and will not require reregistration to support the proposed antenna, OR the FAA has previously determined that the proposed structure will not adversely effect safety in air navigation and this structure qualifies for later registration under the Commission's phased registration plan, OR the proposed installation on this structure does not require notification to the FAA pursuant to 47 C.F.R. Section 17.7. Yes No

Application Data:

1. Channel

(a) DTV Channel No.

(b) Associated analog TV station channel no., if any

2. Principal community to be served:

City or Town

State

3. Effective radiated power (average power): *(in the main lobe of radiation, if directional)* _____ kw

4. Height of antenna radiation center above average terrain (HAAT): *(to the nearest meter)* _____ meters

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5. Purpose of Application: (check appropriate boxes)

- | | |
|---|---|
| <input type="checkbox"/> Construct a new (main) facility | <input type="checkbox"/> Construct a new auxiliary facility |
| <input type="checkbox"/> Modify construction permit for main facility | <input type="checkbox"/> Modify construction permit for auxiliary antenna |
| <input type="checkbox"/> Modify licensed main facility | <input type="checkbox"/> Modify licensed auxiliary antenna |

If purpose is to modify, indicate the nature of change(s) by checking appropriate box(es) and specify the file number(s) of the authorizations affected.

- | | |
|---|---|
| <input type="checkbox"/> Antenna supporting structure height | <input type="checkbox"/> Effective radiated power |
| <input type="checkbox"/> Antenna height above average terrain | <input type="checkbox"/> Channel |
| <input type="checkbox"/> Antenna location | <input type="checkbox"/> Antenna system |
| <input type="checkbox"/> Other (summarize) | |

File Number(s) _____

6. Exact location of transmitting antenna..

- (a) Give address, city/state or if no address, specify distance and bearing relative to the nearest town or landmark.
- (b) Geographical coordinates (*to nearest second*). If mounted on element of an AM array, specify coordinates or center of array. Otherwise, specify tower location. Specify South Latitude and East Longitude where applicable; otherwise, North Latitude or West Longitude will be presumed. (*The Commission requires coordinates based on NAD 27.*)

Latitude ° ' "	Longitude ° ' "
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7. (a) Elevation (*to the nearest meter*)

- (1) of site above mean sea level; _____ meters
- (2) of the top of supporting structure above ground (including antenna, all other appurtenances, and lighting, if any); and _____ meters
- (3) of the top of supporting structure above mean sea level [(a)(1) + (a)(2)]. _____ meters

(b) Height of radiation center: (*to the nearest meter*)

- (1) above ground; and _____ meters
- (2) above mean sea level [(a)(1) + (b)(1)]; _____ meters

8. Attach as an Exhibit sketch(es) of the supporting structure, labeling all elevations required in item 7 above. If mounted on an AM directional array element, specify heights and orientations of all array towers, as well as location of any FM radiator.

Exhibit No.

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9. Antenna

(a) Manufacturer _____ (b) Model No. _____

(c) Is a directional antenna proposed? Yes No

If Yes, specify major lobe azimuth(s) _____ degrees True and attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).

Exhibit No.

(d) Is electrical beam tilt proposed? Yes No

If Yes, specify _____ degrees electrical beam tilt and attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).

Exhibit No.

(e) Is mechanical beam tilt proposed? Yes No

If Yes, specify _____ degrees mechanical beam tilt toward azimuth _____ True and attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c).

Exhibit No.

(f) The proposed antenna is: *(check only one box)*

Horizontally polarized Circularly polarized Elliptically polarized Other: _____

Effective July 1, 1996, the Commission adopted rules which require Antenna Structure owners to apply for a registration number whenever antenna structures meet FAA notification criteria. As owners register these structures they are required to provide licensees with a copy of FCC Form 854R which provides the antenna structure registration number. (If you need additional information contact the FCC's Consumer Assistance Branch at 1-800-322-1117 for a copy of FACT SHEET #15, Antenna Structure Registration.)

10. Will the antenna be mounted on an antenna structure which has been registered with the Commission, to include the proposed antenna installation? Yes No

If Yes, provide the seven digit registration number and, unless item 11 also applies, proceed to item 15. _____

11. Has the owner of the antenna structure filed an application for registration with the Commission that will include the proposed facility? Yes No

If yes, provide the date FCC Form 854 was filed and proceed to item 15. _____

12. (If applicable) If the antenna structure is not yet registered but will be under the Commission's phased registration plan, has the FAA previously determined that the structure would not adversely affect safety in air navigation? Yes No

If Yes, proceed to item 15.

13. Antenna structure will be shielded by existing structures of a permanent and substantial character or by natural terrain or topographic features of equal or greater height, and would be located in the congested area of a city, town or settlement where it is evident beyond all reasonable doubt that the structure is so shielded that it will not adversely affect safety in air navigation, and therefore does not require registration. Yes No

If yes, submit as an Exhibit a detailed explanation and/or diagram to support your claim and skip to item 15.

Exhibit No.

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14. Antenna structure does not otherwise meet FAA Notification as defined under 47 C.F.R. Section 17.7 and therefore does not require registration. Yes No

If Yes, give reason below.

15. Is the supporting structure the same as that of another station(s) or proposed in another pending application(s)? Yes No

If Yes, give call letter(s) or file number(s) or both. _____

- 16 Does the application propose to correct previous site coordinates? Yes No

If Yes, list old coordinates.

Latitude ° ' "	Longitude ° ' "
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17. Attach as an Exhibit a topographic map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the provisions of 47 C.F.R. Section 73.625(b). The map must further display clearly and legibly the original printed contour lines and data as well as latitude and longitude markings, and must bear a scale of distance in kilometers.

Exhibit No.

18. Attach as an Exhibit a map (*Sectional Aeronautical Chart or equivalent*) which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No.

- (a) the proposed transmitting location, and the radials along which profile graphs have been prepared;
- (b) the DTV coverage contour as established in 47 C.F.R. Section 73.625(b); and
- (c) the legal boundaries of the principal community to be served.

19. Terrain and coverage data (to be calculated in accordance with 47 C.F.R. Section 73.625(b))

Source of terrain data: (*check only one box below*)

- Linearly interpolated 30-second database (Source: _____)
- Linearly interpolated 3-second database (Source: _____)
- 7.5 minute topographic map
- Other (*briefly summarize*)

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Radial bearing (degrees True)	Height of radiation center above average elevation of radial from 3 to 16 km (meters)	Predicted distance to the DTV Coverage Contour (kilometers)
*		
0		
45		
90		
135		
180		
225		
270		
315		

*Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT.

20. Does the proposed facility satisfy the interference protection provisions of 47 C.F.R. Section 73.623(a)? (Applicable only if **Certification Checklist** items 1(a), (b), or (c) are answered "No.") Yes No

If No, attach as an Exhibit justification therefore, including a summary of any related previously granted waivers.

21. If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefore. (Applicable only if **Certification Checklist** item 3 is answered "No.")

22. Environmental Statement. (See 47 C.F.R. Section 1.1301 et seq.)

- (a) If a Commission grant of this application comes within 47 C.F.R. Section 1.1307, such that it may have a significant environmental impact, submit as an Exhibit an Environmental Assessment required by 47 C.F.R. Section 1.1311.

(b) If No, explain briefly why not.

- (c) Pursuant to OST Bulletin No. 65, the applicant must explain in an Exhibit what steps will be taken to limit the RF radiation exposure to the public and to persons authorized access to the tower site. In addition, where there are multiple contributors to radio frequency radiation, you must certify that the established RF radiation exposure procedures will be coordinated with all stations.

CERTIFICATION

I certify that I have prepared this Section of this application on behalf of the applicant, and that after such preparation, I have examined and found it to be accurate and true to the best of my knowledge and belief.

Name (Typed or Printed)	Relationship to Applicant (e.g., Consulting Engineer)
Signature	Address (include ZIP Code)
Date	Telephone No. (include Area Code)