

CLAUSE NO.	TECHNICAL REQUIREMENTS																		
12.00.00(D)	Annexure- (D)																		
	CRITERIA FOR WIND RESISTANT DESIGN OF STRUCTURES AND EQUIPMENT																		
	All structures shall be designed for wind forces in accordance with IS:875 (Part-3) and as specified in this document. See site specific information below.																		
	Along wind forces shall generally be computed by the Peak (i.e. 3 second gust) Wind Speed method as defined in the standard.																		
	Along wind forces on slender and wind sensitive structures and structural elements shall also be computed, for dynamic effects, using the Gust Factor or Gust Effectiveness Factor Method as defined in the standard. The structures shall be designed for the higher of the forces obtained from Gust Factor method and the Peak Wind Speed method.																		
	Analysis for dynamic effects of wind must be undertaken for any structure which has a height to minimum lateral dimension ratio greater than "5" and/or if the fundamental frequency of the structure is less than 1 Hz.																		
	Susceptibility of structures to across-wind forces, galloping, flutter, ovalling etc. should be examined and designed/detailed accordingly following the recommendations of IS:875(Part-3) and other relevant Indian standards.																		
	It should be estimated if size and relative position of other structures are likely to enhance the wind loading on the structure under consideration. Enhancement factor, if necessary, shall suitably be estimated and applied to the wind loading to account for the interference effects.																		
	Damping in Structures																		
	The damping factor (as a percentage of critical damping) to be adopted shall not be more than as indicated below for:																		
a) Welded steel structures : 1.0%																			
b) Bolted steel structures/RCC structures : 2.0%																			
c) Prestressed concrete structures : 1.6%																			
d) Steel stacks : As per IS:6533 & CICIN Model Code whichever is more critical.																			
SITE SPECIFIC DESIGN PARAMETERS																			
The various design parameters, as defined in IS: 875 (Part-3), to be adopted for the project site shall be as follows:																			
<table><tr><th>DESCRIPTION</th><th>TELANGANA</th><th>NABINAGAR</th><th>GADARWARA</th></tr><tr><td>Basic wind speed "Vb" at ten meters above the mean ground level</td><td>44 m/s</td><td>47 m/s</td><td>39 m/s</td></tr><tr><td>Risk coefficient "K1"</td><td>1.07</td><td>1.07</td><td>1.06</td></tr><tr><td>Category of terrain</td><td>Category-2</td><td>Category-2</td><td>Category-2</td></tr></table>				DESCRIPTION	TELANGANA	NABINAGAR	GADARWARA	Basic wind speed "Vb" at ten meters above the mean ground level	44 m/s	47 m/s	39 m/s	Risk coefficient "K1"	1.07	1.07	1.06	Category of terrain	Category-2	Category-2	Category-2
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GADARWARA STPP STAGE-II (2X800MW) TELANGANA STPP STAGE-II (3X800MW) NABINAGAR STPP STAGE-II (3X800MW) BULK BTG PACKAGE		TECHNICAL SPECIFICATION SECTION-VI, PART-B BID DOC. NO.: CS-8014/9592/0371-001A-2																	
		SUB-SECTION-D-1 CIVIL WORKS ANNEXURES	PAGE 1528 OF 1545																