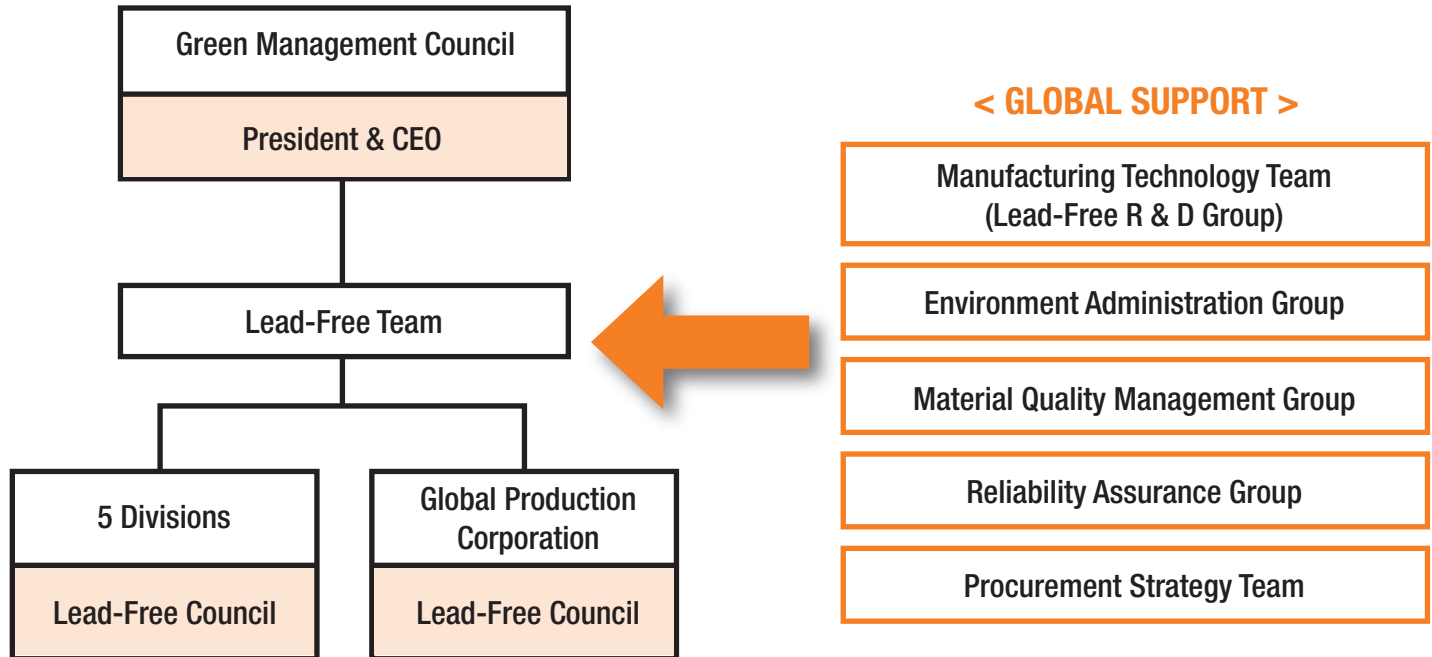


# Venkel Lead-Free Qualification Standard

# Lead-Free Organization

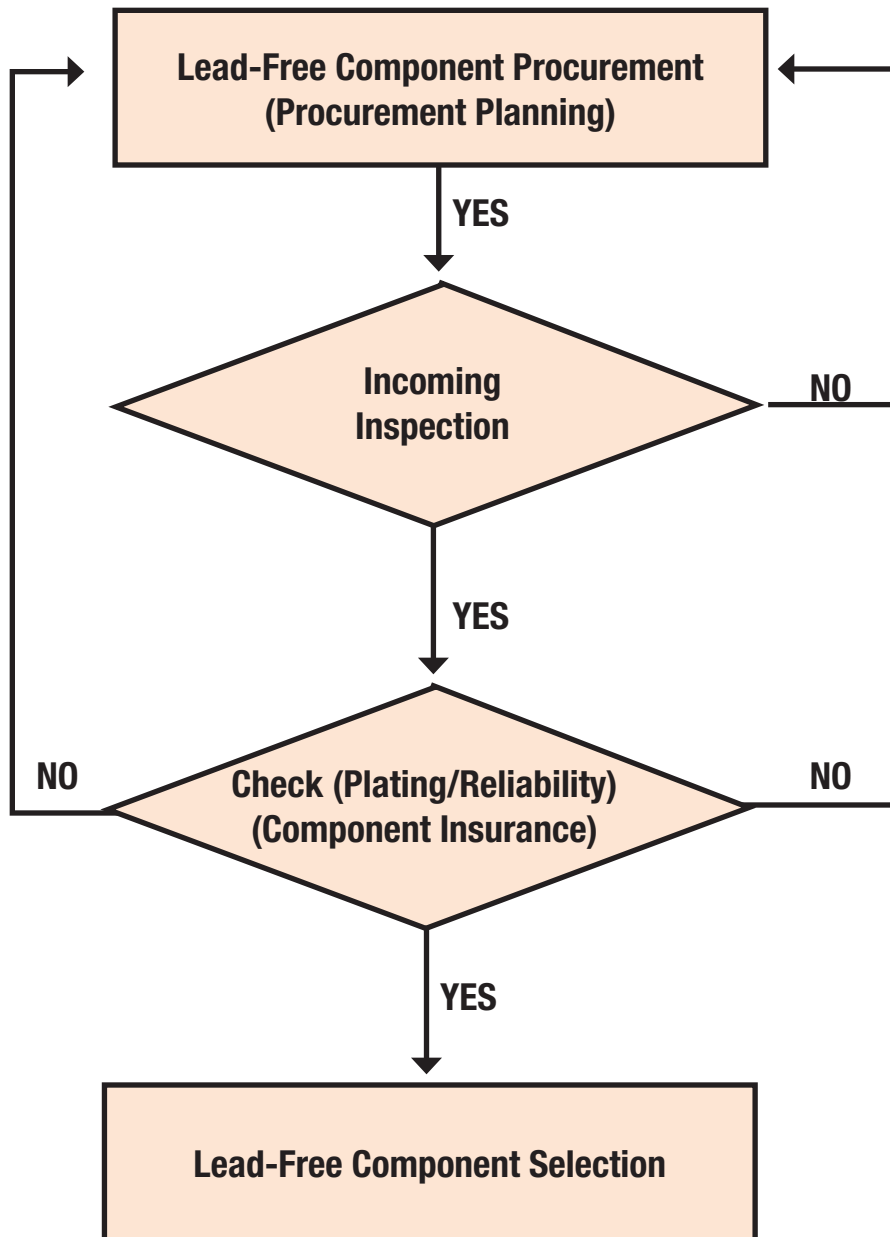


## Roles of Lead-Free Team:

- Development of Lead-Free Solder, Soldering Technology and Solder Joint Reliability
- Drive Lead-Free Policy and Standard
- Support and Provide Lead-Free Solutions for mass production for all divisions



# Components Approval Process



## Components Reliability Test

- Solderability
- Heat Resistance
- Tin Whisker

# Testing for Lead-Free Components

Test	Test Condition	Specification	Rel. Standard
<b>Solderability</b>	Steam Aging	Wetting Area > 95%	J-STD-020C
<b>Solder Heat Resistance</b>	Flow -260°C/10s	Appearance No Electrical & Mechanical change	MIL202G#210F
	Reflow -260°C/10s		
	Hand -400°C X 2		
<b>Tin Whisker</b>	T/C: -55°C~85°C 1000 cycles	Tin Whisker: < 50 µm	JEITA/NEMI
	60°C/93%RH 1000 hrs		
	Storage 25°C, 30~80%RH 1000 hrs		

## • Moisture Sensitivity

- A minimum of Level 3 is required and the specifications, inspection and pass/fail criteria will be per J-STD-020C for Lead-Free.