

Ref: JK/CTO-(Plant)/2023-24/19/02

Date- 27.09.2023

To,
Member Secretary,
MP Pollution Control Board,
Paryawaran Parisar, E-5, Arera Colony,
Bhopal (MP).

Subject: Environment Statement Report (Form-V) for FY. 2022-23 of M/s Jaykaycem (Central) Limited, Plot. No. Various khasra at Village- Devra, Harduaken, Puraina, Sotipura, Maddayan, Amanganj-Hata Road, Tahsil-Amanganj (Old Pawai), District- Panna

Reference No.:

- 1- Environment Clearance vide no IA-J-11011/224/2016-IA. II (I) dated 02.03.2022
- 2- CTO- AWH-56455, Valid up to (Air/Water)- 30/09/2025, (Hazardous)- 30/06/2027

Dear sir,

With reference to aforesaid subject, please find herewith enclosed Environment Statement Report (Form-V) for FY. 2022-23 of M/s Jaykaycem (Central) Limited, Plot. No. Various khasra at Village- Devra, Hrduaken, Puraina, Sotipura, Maddayan, Amanganj-Hata Road, Tahsil-Amanganj (Old Pawai), District- Panna.

This is for your kind information and record, please.

Thanking you.

Yours faithfully,

For Jaykaycem (Central) Limited



Kapil Agrawal

(Unit Head)

Encl: As above

- CC: 1- The Regional Office (WZ), MoEF&CC, Kendriya Paryavaran Bhawan, Bhopal – 462 016
2- Regional Officer, Regional Office, MP Pollution Control Board, Makronia, Sagar (MP)

FORM – V

ENVIRONMENTAL STATEMENT REPORT FOR THE FINANCIAL YEAR 2022-23

PART – A

(I)	Name & Address of the Owner / Occupier of the Industry Operation or Process	Mr. Kapil Agrawal (Unit Head) Jaykaycem (Central) Limited (Unit: J. K. Cement Limited) Village-Devra, Harduaken, Puraina, Sotipura, Maddayan,, Tehsil-Amanganj (Old Pawai), Distt. Panna-488441 (M.P.)
(II)	Industry Category Primary (STC CODE) Secondary (SIC CODE)	Large Scale Red Category
(III)	Production Capacity	3.0 MTPA (Cement), 3.3 MTPA (Clinker), WHRS (25 MW) and DG (1750 KVA)
(IV)	Year of Establishment	Year 2022
(V)	Date of last Environmental Statement Submitted	21.09.2022

PART – B

Water & Raw Material Consumption and Cement Production

A. Water

- (i) Over All Consumption - N.A. (As plant is based on dry Process Technology)
- (ii) Process - NIL
- (iii) Cooling and WHRS - 199748 KL
- (iv) Domestic - 38622 KL

Consumption per unit of production

Name of the Product	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
Cement and Clinker	Nil	0.467

B. Raw Material Consumption in Cement production

Name of the Raw Material	Name of Product	Consumption of Raw Material per Unit Product Output (MT/MT of Cement)	
		During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
Lime Stone	Cement & Clinker	0	1.032
Coal		0	0.049
Pet coke		0	0.033
Gypsum		0	0.046
Flyash		0	0.318
Iron ore/ Laterite/Red Ochre/Red Mud		0	0.035

		5. Please refer Water consumption and waste water generation report as Annexure I , STP treated water analysis report as Annexure II and Drinking water analysis report as Annexure III
(b)	Air	Please refer Ambient Air Quality Monitoring Reports as Annexure IV , Stack emission monitoring report as Annexure V , Fugitive emission monitoring report as Annexure VI and Noise Monitoring reports as Annexure VI

PART – D

(As specified under Hazardous waste / Management and Handling rules, 1989 as Amended -2000)

Hazardous waste		During the Previous Financial Year (2021-22)	During the Current Financial Year (2022-23)
From Process	(a) Category 35.3 Chemical sludge from waste water treatment	00	00
	(b) Category 35.4 Oil and Grease, Skimming	00	00
	(c) Category 33.1 Empty Barrels /Containers/ Liners Contaminated with Hazardous Chemicals /Wastes	00	00
	(d) Category 33.2 Contaminated Cotton Rags or Other Cleaning Materials	00	00
	(e) Category 5.2 Wastes Or Residues Containing Oil	00	00
	(f) Category 1.7 Oil from Waste Water Treatment	00	00
	(g) Category 4.1 Oily Sludge or Emulsion	00	00
	(h) Category 35.2 Spent Ion Exchange Resin Containing Toxic Metals	00	00
	(i) Category 5.1 Used or Spent Oil	00	00
From Pollution Control Facilities	Nil	00	00

Conservation of limestone-

Limestone is being used for the manufacturing of cement by the proper blending of different grade of limestone for preparation of proper raw mix design which can be produced a good quality of cement. The raw mix design has been prepared in such a way that it reduces the limestone stone saturation factor by which substantial quality of limestone has been conserved. In the same manner as per the Regulation of Bureau of Indian Standard, we are also using the fly ash in grinding of cement (PPC) manufacturing up to maximum 35% of the total cement manufactured which ultimately reduces the raising of limestone from mines. By reduction of consumption of limestone in cement manufacturing process, it also leads to the reduce the consumption of fossil fuel and it ultimately reduce the quantity of generation of different pollutant like suspended particulate matter, emission of SO₂ and NO_x, fugitive emission from various stages of handling of limestone (Drilling to Grinding stages). Substantial quantity of electrical and thermal energy has been also saved.

Use of STP treated water for the gardening purpose-

We have latest and advance technology-based Sewage Treatment Plant. We have installed total 07 Nos. STP (Capacity= 10 KLD- 02 Nos., 05 KLD- 04 Nos. and 200 KLD-01 Nos.). The total quantity of treated water is being used in gardening..

Extensive plantation in and around the plant-

We have a horticulture officer for the forestation and greenery development program at our plant and mines under the supervision of senior experienced person.

Year	Greenbelt Area in Ha.	Numbers of Saplings (nos.)
	Achieved (Ha)	Achieved
Up to March 2023	15.95	39897

Storage of raw materials-

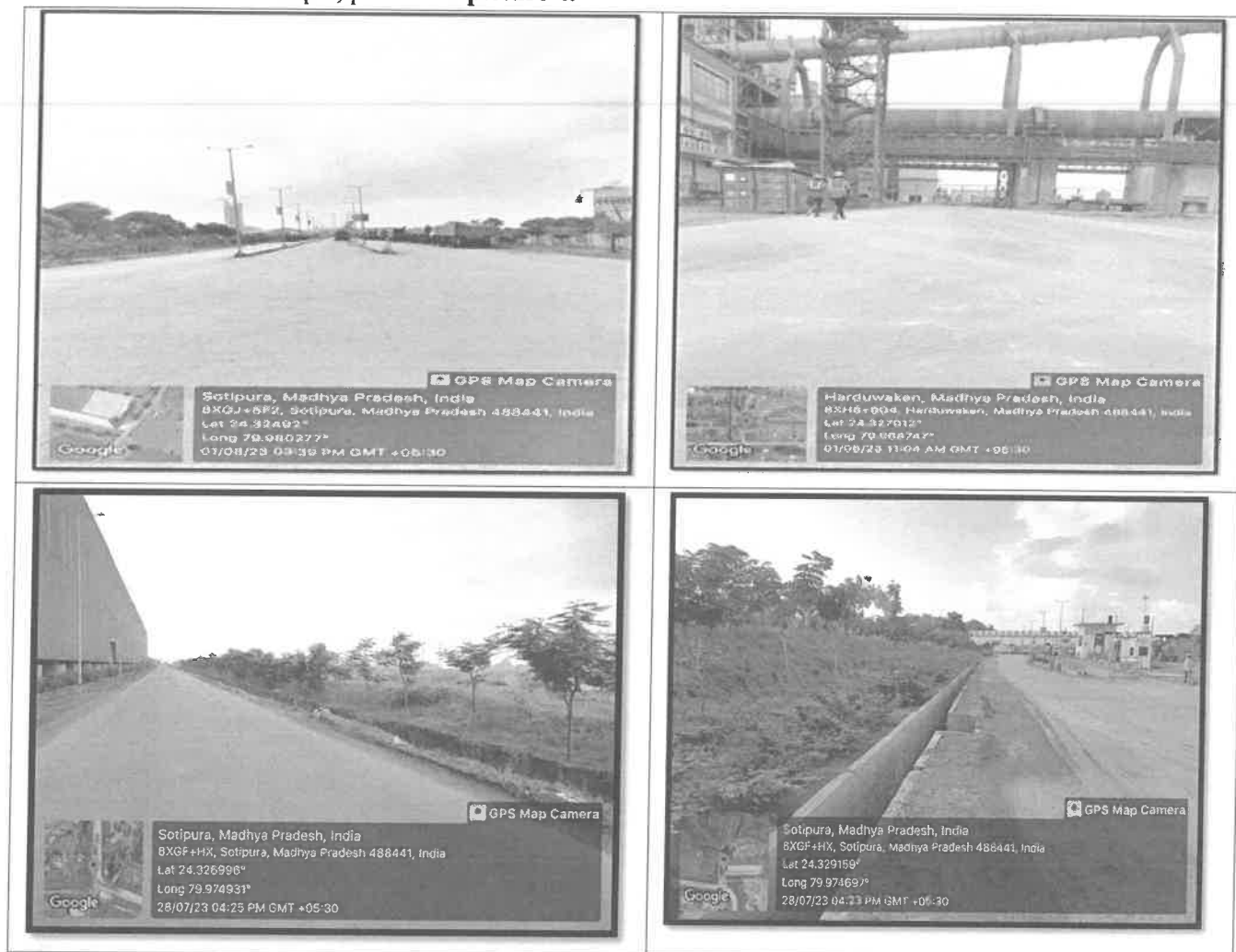
- i- All the raw materials are stored in the covered sheds. For example, please see **picture 1**.



Picture 1- Covered sheds for storage of raw materials

Concreting of Kachcha roads/floor-

All roads of plant have been concreted / paved. Plantation is also being done side by the roads for the beautification. For example, please see **picture 4**.



Picture 4- Paved roads with side plantation and Paved floor

Installation of Pollution Control Devices-

Following devices are installed for emission control and emission is well within the prescribed limits.

The list of major Pollution Control Devices installed is as under:-

Sr. No.	Pollution Control Devices attached with	Pollution Control Devices installed
1	Raw Mill (02 Nos.)/Kiln (01 Nos.)	Bag House
2	Coal Mill (01 Nos.)	Bag House
3	Cooler (01 Nos.)	Electro Static Precipitator
4	Cement Mill (01 Nos.)	Bag House

Energy conservation measures-

- 1- We have installed solar street lights.
- 2- We have installed roof top solar system of 75.6 KW.



Picture 6- Continuous Ambient Air Quality Monitoring Systems (CAAQMS) installed



Picture 7- Continuous Emission Monitoring Systems (CEMS) installed

JAYKAYCEM (CENTRAL) LTD., PANNA (M.P.)

A unit of JK Cement Ltd.

Water Consumption & Waste Water Generation Report in for FY 2022-23

Month	Water Consumption in (KL)					Waste Water Generation in (KL)				
	Permissible limit for Mnfg. Process	Water Consumption for Mnfg. Process	Permissible limit for DM water plant for boiler & WHRB	Water Consumption for DM water plant for boiler & WHRB	Permissible limit for Domestic Purpose	Domestic Water Consumption	Permissible limit for Mnfg. Process	Waste Water generation for Mnfg. Process	Permissible limit for DM water plant for boiler & WHRB	Waste Water generation for DM water plant for boiler & WHRB
Apr-22	48450	33139	15750	0	4500	2677	360	0	6990	0
May-22	50065	46979	16275	0	4650	3024	372	0	7223	0
Jun-22	48450	0	15750	0	4500	2404	360	0	6990	0
Jul-22	50065	0	16275	0	4650	3829	372	0	7223	0
Aug-22	50065	0	16275	0	4650	3635	372	0	7223	0
Sep-22	48450	0	15750	0	4500	4486	360	0	6990	0
Oct-22	50065	1201	16275	0	4650	3729	372	0	7223	0
Nov-22	48450	16460	15750	0	4500	4208	360	0	6990	0
Dec-22	50065	17149	16275	0	4650	2427	372	0	7223	0
Jan-23	50065	22640	16275	0	4650	4646	372	0	7223	0
Feb-23	45220	27240	14700	0	4200	1977.31	336	0	6524	0
Mar-23	50065	34940	16275	0	4650	1580.01	372	0	7223	0
Total	589475	199748	191625	0	54750	38622.32	4380	0	85045	0
										306.23

Abhishek Joshi

Abhishek Joshi
Monitored & Checked by

Saurabh Kumar Yadav

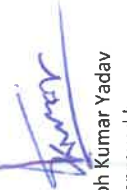
Saurabh Kumar Yadav
Approved by

JAYKAYCEM (CENTRAL) LTD., PANNA (M.P.)
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STP WASTE AND TREATED WATER ANALYSIS REPORT FOR FY-2022-23

Parameters	Standards	Nov-22			Dec-22			Jan-23			Feb-23			Mar-23		
		STP (10 KLD) Guest House	STP (5 KLD) (Project office)	STP (10 KLD) Guest House	STP (10 KLD) Guest House	STP (5 KLD) (Project office)	STP (10 KLD) Guest House	STP(5 KLD) (Project office)	STP (10 KLD) Guest House	STP (5 KLD) (Project office)	STP (10 KLD) Guest House	STP (10 KLD) Guest House	STP (5 KLD) (Admin Building)			
		Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet	Outlet			
pH	6.5-9	7.35	7.21	7.25	7.17	7.11	7.42	7.12	7.45	7.62	7.3					
TSS mg/L	100	13.31	16	12	15	16	10	17	17	26	15					
COD mg/L	250	117	121	116	140	135	109	139	117	128	104					
BOD mg/L	30	15	12	13	16	17	12	18	14	17	15					
O & G mg/L	10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5					
Fecal Coliform mpn/100ml	Not Exceed 1000	6	4	4	5	7 CFU	6 CFU	7 CFU	6 CFU	7 CFU	6 CFU					


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DRINKING WATER ANALYSIS REPORT FOR FY-2022-23

Sr. No.	Parameters	Prescribed Limits as per IS 10500:2012		Bore Well No. 1 (Near Zero Point)	Bore Well No. 2 (Near Plant Main Gate)	Ken River
		Required (Acceptable Limit)	Permissible Limit			
1	pH	6.5-8.5	No Relaxation	6.68	7.05	7.39
2	Color, Hazen Units	5	15	<1	<1	<1
3	Taste	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
4	Odour	Agreeable	Agreeable	Agreeable	Agreeable	Agreeable
5	TDS	500 mg/L	2000 mg/L	633	559	209
6	Electrical Conductivity µS/cm	-	-	925	874	320
7	Turbidity	1	5	0.23	0.17	0.18
8	Total Alkalinity	200 mg/L	600 mg/L	380	380	108
9	Total Hardness	200 mg/L	600 mg/L	368	300	124
10	Calcium	75mg/L	200 mg/L	104	70.4	33.6
11	Magnesium	30 mg/L	100 mg/L	52.49	30.13	17.5
12	Sodium	-	-	22.37	25.95	7.25
13	Potassium	-	-	1.14	1.12	2.03
14	Nitrate	45 mg/L	No Relaxation	17.65	22.68	9.72
15	Total Phosphate	-	-	<0.50	<0.50	<0.5
16	Chloride	250 mg/L	1000 mg/L	<0.003	15.99	13.99
17	Sulphate	200 mg/L	400 mg/L	58.24	11.75	16.81
18	Fluoride	1.0 mg/L	1.5 mg/L	0.88	0.86	<0.10
19	Cyanide	0.05 mg/L	No Relaxation	<0.01	<0.01	<0.01
20	Phenolic Compound	0.001 mg/L	0.002 mg/L	<0.001	<0.001	<0.01
21	Total Arsenic	0.01 mg/L	No Relaxation	<0.005	<0.005	<0.01
22	Mercury	0.001 mg/L	No Relaxation	<0.005	<0.001	<0.01
23	Lead	0.01 mg/L	No Relaxation	<0.001	<0.001	<0.01
24	Cadmium	0.003 mg/L	No Relaxation	<0.003	<0.003	<0.003
25	Total Chromium	0.05 mg/L	No Relaxation	<0.01	<0.01	<0.01
26	Copper	0.05 mg/L	1.5 mg/L	<0.01	<0.01	<0.01
27	Zinc	5 mg/L	15 mg/L	<0.01	<0.01	<0.01
28	Selenium	0.01 mg/L	No Relaxation	<0.01	<0.01	<0.01
29	Iron	0.3 mg/L	No Relaxation	0.06	0.03	0.02
30	Manganese	0.1 mg/L	0.3 mg/L	<0.01	<0.01	<0.01
31	Total Coliform	Shall not be detectable in 100 ml sample		5CFU	3CFU	10CFU

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AMBIENT AIR QUALITY MONITORING DATA FOR FY-2022-23

Month /Year	PM10 (µg/Cum)						PM2.5 (µg/Cum)						SO2 (µg/Cum)						NO2 (µg/Cum)					
	Permissible Limit for 24 hours - 100 (µg/Cum)						Permissible Limit for 24 hours - 60 (µg/Cum)						Permissible Limit for 24 hours - 80 (µg/Cum)						Permissible Limit for 24 hours - 80 (µg/Cum)					
	Near Zero Point	Near Reservoir	Behing Store	Near Guest House	Near Reservoir	Near Guest House	Near Zero Point	Near Reservoir	Behing Store	Near Guest House	Near Zero Point	Near Reservoir	Behing Store	Near Guest House	Near Zero Point	Near Reservoir	Behing Store	Near Guest House	Near Zero Point	Near Reservoir	Behing Store	Near Guest House		
Apr-22	54.23	53.80	59.18	59.10	34.61	35.44	33.34	34.61	28.46	35.44	6.83	7.08	7.56	6.93	11.56	13.01	14.28	13.77						
May-22	53.76	53.37	58.37	57.39	34.50	34.11	33.65	34.50	27.43	34.11	6.78	7.10	7.47	6.90	11.62	12.97	14.38	13.89						
Jun-22	47.42	48.89	50.68	51.93	29.16	31.56	30.56	29.16	27.38	31.56	6.64	6.84	6.78	6.52	11.43	11.74	12.35	13.07						
Jul-22	46.48	47.51	49.32	51.33	30.31	31.34	30.31	30.31	27.21	31.34	6.46	6.86	6.80	6.63	11.49	11.50	11.94	12.66						
Aug-22	50.47	50.89	54.39	54.94	32.12	33.11	31.96	32.12	27.62	33.11	6.68	6.97	7.15	6.74	11.53	12.18	13.24	13.35						
Sep-22	53.90	53.77	59.54	59.42	33.83	34.83	32.69	33.83	28.95	34.83	6.56	7.18	7.49	6.94	11.24	12.37	14.12	13.10						
Oct-22	54.95	54.41	57.89	58.59	33.52	34.51	34.00	33.52	28.22	34.51	6.53	7.24	7.50	6.66	11.45	12.94	14.35	14.12						
Nov-22	53.79	53.59	58.56	58.74	34.28	35.66	33.13	34.28	29.66	35.66	6.80	6.90	7.45	6.91	11.36	12.62	13.91	13.80						
Dec-22	50.55	51.35	56.27	56.73	32.30	34.58	32.65	32.30	29.20	34.58	6.83	6.79	7.35	6.91	11.40	11.99	13.47	13.31						
Jan-23	53.90	55.26	60.11	58.83	32.80	34.76	32.80	34.59	29.94	34.76	6.65	7.23	7.43	7.00	11.21	13.12	14.35	13.67						
Feb-23	52.85	54.46	57.04	57.49	35.76	36.72	35.49	35.76	31.09	36.72	6.71	7.05	7.45	6.86	11.33	12.64	13.88	13.89						
Mar-23	52.39	54.02	55.59	56.84	34.26	32.93	31.97	34.26	27.43	32.93	6.89	7.67	8.10	7.14	12.30	13.18	14.03	12.91						
Minimum	46.48	47.51	49.32	51.33	29.16	31.34	30.31	29.16	27.21	31.34	6.46	6.79	6.78	6.52	11.21	11.24	11.94	12.66						
Maximum	54.95	55.26	60.11	59.42	35.76	36.72	35.49	35.76	31.09	36.72	6.89	7.67	8.10	7.14	12.30	13.18	14.38	14.12						
Average	52.06	52.61	56.41	56.78	33.29	34.13	32.68	33.29	28.55	34.13	6.70	7.07	7.38	6.85	11.49	12.48	13.69	13.46						



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JAYKAYCEM (CENTRAL) LTD., PANNA (M.P.)**A unit of JK Cement Ltd.****STACK MONITORING DATA FOR FY-2022-23**

Stack locations							
Sr No.	Month /Year	Cement Mill	Coal Mill	Cooler Esp	Raw Mill Kiln		
		PM in mg/Nm3	PM in mg/Nm3	PM in mg/Nm3	PM in mg/Nm3	SO2 in mg /Nm3	NOx in mg/Nm3
1	Nov-22	14.08	-	-	-	-	-
2	Dec-22	12.76	11.13	12.17	9.13	152.34	132.67
3	Jan-23	15.1	16.3	12.7	16.4	158.9	120.7
4	Feb-23	7.8	10.4	7.1	8.2	5.67	364.12
5	Mar-23	14.06	3.31	14.01	8.2	33.25	221.56
	Avg	12.76	10.29	11.50	10.48	87.54	209.76
	Min	7.8	3.31	7.1	8.2	5.67	120.7
	Max	15.1	16.3	14.01	16.4	158.9	364.12



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FUGITIVE EMISSION MONITORING DATA FOR FY-2022-23

Month	SPM (µgm/Cum) Permissible limit - 600 µgm/cum						
	Near Gypsum Yard	Near Cement Mill	Near Coal Mill	Near Packing plant area	Near CCR	Near Clinker Silo area	Near Limestone Yard
Apr-22	211.38	167.38	123.48	210.3	196.4	254.84	110.3
May-22	204.37	166.34	176.37	197.47	188.74	223.47	116.94
Jun-22	194.04	154.39	154.74	156.47	167.37	204.57	123.54
Jul-22	183.39	132.48	144.38	176.37	154.48	188.49	103.29
Aug-22	187.59	143.47	174.37	164.38	167.48	212.49	88.29
Sep-22	167.49	134.59	166.47	176.2	96.2	163.4	71.1
Oct-22	155.47	139.57	174.34	186.26	99.87	158.94	87.37
Nov-22	198.48	122.45	156.38	191.73	102.83	207.31	105.26
Dec-22	156.47	128.48	164.37	201.76	105.71	212.29	103.23
Jan-23	201.04	134.95	154.49	219.6	101.03	167.54	152.3
Feb-23	195.2	137.57	159.95	200.43	110.87	171.23	188.24
Mar-23	179.37	121.47	135.4	170.56	105.46	165.64	210.49
Minimum	155.47	121.47	123.48	156.47	96.20	158.94	71.10
Maximum	211.38	167.38	176.37	219.60	196.40	254.84	210.49
Average	186.19	140.26	157.06	187.63	133.04	194.18	121.70



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Approved by

Answer

Approved by
Surabh Kumar Yadav

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