



GOVERNMENT OF ODISHA

DEPARTMENT OF WATER RESOURCES

LOWER SUKTEL QUALITY CONTROL & DESIGN DIVISION, BALANGIR

UNDER

C.C.E., LOWER SUKTEL PROJECT, BALANGIR

**ANNUAL REPORT FOR
THE YEAR 2017-18**

**Executive Engineer
L.S.Q.C. & Design Division,
Balangir**

LOWER SUKTEL QUALITY CONTROL & DESIGN DIVISION, BALANGIR

Initially Chief Research Officer (CRO), Lower Suktel Quality Control Division, Magurbeda at Lower Suktel Dam site was created vide Department of Water Resources Ir. no. 28750/WR dtd.14.09.2005, but virtually started functioning from 09.11.2005. Chief Research Officer was declared drawing and disbursing officer vide memo no. 4250. Dtd.19.12.2005 of the Chief Engineer, Lower Suktel & Lower Indra Project, Nuapada. The office started functioning at Dam Site Colony, Magurbeda since then. During creation of post and fixation of headquarters on restructuring of the cadre of Odisha Engineering Service, this office was renamed as, Executive Engineer, Lower Suktel Quality Control & Design Division with headquarters at Balangir vide DOWR Lr. No. 31013 dtd. 04.12.2013.

There was no building for functioning of this office at Balangir. Hence after shifting of Office of the Chief Construction Engineer, Lower Suktel Project to its new building at Laltikra, Balangir, this Office started functioning as O/o the Executive Engineer, Lower Suktel Quality Control & Design Division, Balangir at old C.C.E. Office at Laltikra (Southern part of the O/o the Deputy Director, Hydrometry, Balangir) **since 05.09.2014** with its furnished Laboratory now at L.S. Dam site colony, Magurbeda.

Staff Position:-

Sl. NO.	Name of post	Present sanctioned strength	Strength	Vacancy	Remarks (Working in this office on Deputation)
1	Executive Engineer (C)	1	1	-	
2	Deputy Executive Engineer (C)	1	1	-	
3	Asst. Executive Engineer (C)	3	0	03	01 Deputation 01 I/C
4	Asst. Engineer(C)	0	0	0	01 Deputation
5	Junior Engineer (C)	1	1	0	02 NOs.on Deputation
6	Head Clerk	1	1	0	
7	Senior Clerk	2	0	02	01 NO.on Deputation
8	Junior Clerk	8	01	07	Work in on C.C.E. Office
9	Junior Stenographer	1	-	1	
10	Peon	10	5	5	
11	Night Watch Man-cum-sweeper	2	2	-	
12	Technical Assistant	4	3	1	

13	Embankment Inspector	3	1	2	
14	Asst. Embankment Inspector	2	0	2	
15	Lab. Assistant	1	0	1	
16	Dark Room Asst.(DRA)	1	0	1	

Apart from this , 15 nos. (Work Sarkar-1, Lab. Attended-4, Khalasi-3, Watchman-4, Mate-2, Mulia-1) Work-charges supporting staff are working in this Division.

JURIDICTION

Supervision of Quality Assurance / Control / Monitoring aspects to on-going construction works of

1) L.S. Dam Division, Magurbeda

- i. Earth Dam for RD 00m to 1147m
- ii. Spillway of 271mtr. length & H/R of LS RMC
- iii. Rt Dyke from RD 00m to 1110m including H/R of LS RMC

2) L.S. R R C&B Division, Balangir

3) L.S. Canal Division, Balangir

4) L.S. Canal Division No.II, Loisingha

In addition to monitoring Quality Control aspect of Works of Lower Suktel Project (LSP), **Engineer-in-Chief, W.R. Vide his O/o No. 14107 Dtd. 12.04.2016** entrusted the work of Quality Control testing and monitoring works under **Balangir Irrigation Circle, Balangir** to Executive Engineer, Lower Suktel Quality Control & Design Division Balangir, in addition to its own duties.

Hence this Division looks after monitoring quality control aspect of Lower Suktel Project & works of Divisions under Balangir Irrigation Circle, Balangir i.e. **Balangir Irrigation Division, Balangir, Boudh Irrigation Division, Boudh & Titilagarh Irrigation Division, Titilagarh**

CENTRAL LABORATORY AT MAGURBEDA

Central Quality Control Laboratory Building was constructed by Lower Suktel R.R.C. & B Division, Balangir with Electrical Installation including Electricity wiring and handed over to the Chief Research Officer, Lower Suktel Quality Control Division in Sept. 2009. Pedestals were constructed for installation of Quality Control Equipments such as Vibrating table for Concrete cube, Vibrating Machine, Compressive strength testing machine, Muffle Furnace, Consolidation apparatus, Sieve shaker, Sample extractor, Bitumen extractor, Impact value apparatus, Sieving apparatus for Course & Fine Aggregate, Slump Cone, Weighing machine etc. and in operation **since December, 2010**.

Subsequently additional equipments such as Abrasion testing machine, Permeability test apparatus, Tri-axial shear testing machine, Le-chatelier Bath-tub, Hot-air oven, apparatus for heavy & light compaction, Liquid limit & Plastic limit apparatus etc. have been installed & in operation **since May, 2015**. Now also we are going to procure our Generator to take care of power needs during power failure.

DRAWING & DESIGN UNDER L.S.P.

No such activity has yet been taken up till date also no such office bearers are available with this Division till date.

A) TECHNICAL STAFF

1. Sri Gokulbandhu Meher, D.E.E.(C)
2. Sri H.K.Pradhan, A.E.E.(C) (On deputation)
3. Sri Pratyush Pradhan A.E.E.(C) (On deputation)
4. Smt.Sunita Sahu, J.E.(C) (On deputation)
5. Sri Agasti Kanhar, J.E. (C)Contractual
6. Sri Ramesh Kisan, J.E.(C)Contractual
7. Sri Dileswar Pradhan, T.A.
8. Sri Prasanna Ku. Debata, T.A.
9. Sri Manoj Kumar Puta, T.A.
10. Sri Rajendra Bissoyi, E.I.
11. Sri Abhiraj Naik, A.E.I.

B) MINISTERIAL STAFF

1. Sri Dukalu Majhi, Head Clerk (Supervision work of both Establishment)
2. Sri Kalia Behera Senior Clerk (All correspondence of Regular Establishment)
3. Sri Biswambar Majhi, Peon (Work in Division Office)
4. Sri Krutibas Jhadia, Peon (Work in Division Office)
5. Sri Sadashiba Khilo, Peon (Work in Division Office)
6. Sri Lalit Kumar Meher, Peon (Attach to Cashier in Division Office)
7. Sri Surendra Naik, Night Watchman Cum-Sweeper (attached to Laboratory, Magurbeda)
8. Sri Durja Harijana, Night Watchman Cum-Sweeper (Work in Division Office)

C) Work-Charged Staff

1. Sri Champeswar Padhan, Work Sarkar (attached to Sri G.B. Meher, A.E.E.(C))
2. Sri Prasanna Kumar Chand, Lab. Attendant (attached to Laboratory, Magurbeda)
3. Sri Dambarudhar Chhanda, Lab. Attendant (attached to Laboratory,
4. Sri Santosh Kumar Bhukta, Lab. Attendant (attached to Laboratory, Magurbeda)
5. Sri Parthaba Bagarti, Mate ((attached to Laboratory, Magurbeda)
6. Sri Suresh Mahakur, Lab. Attendant (attached to Laboratory, Magurbeda)
7. Sri Santosh Kumar Karna, Mate (attached to Laboratory, Magurbeda)
8. Sri Rangadhar Chand, Khalasi (attached to Sri B.K. Dash, A.E.E.(C))
9. Sri Shyam Sundar Amat, Khalasi (attached to Laboratory, Magurbeda)
10. Sri Hiramani Mendili, Khalasi (attached to Laboratory, Magurbeda)
11. Sri Chandra Sekhar Thanapati, Watchman (attached to Division Office)
12. Sri Dadhi Palia, Watchman (attached to Laboratory, Magurbeda)
13. Sri Ajatna Kampa, Watchman (attached to Laboratory, Magurbeda)
14. Sri Gadhi Mukhi, Watchman (attached to Division Office)
15. Sri Dinabandhu Bhoi, Mulia (attached to Division Office)

STAFF ON DEPUTATION BASIS

- 1) Sri Belthajar Ekka, A.E.(C) of L.S. Canal Division, Balangir is deputed to this Division vide O/o No. 991 Dated 23.04.2015 Of C.C.E., L.S.P., Balangir and engaged in preparation and Checking of Estimates of works of this Division and assist E.E. during inspection of works.
- 2) Smt. Sunita Sahu, J.E.(C) Contractual of C.C.E,L.S.P, Balangir is deputed to this Division vide O/o No. 2376 Dated 29.12.2016 Of C.C.E., L.S.P., Balangir and is engaged as Estimator & up-keeping of records and day-to-day correspondence of this office & Submission of monthly progress report to the C.C.E., L.S.P, Balangir with copy submitted to the Director Research & Quality Control and Nodal Officer SQMC, BBSR – 12. & Chief Engineer, Quality Control & Research, Odisha, Bhubaneswar.

ENGAGEMENT OF HIRED PRIVATE VEHICLE FOR OFFICE USE

One hired private vehicle No. OD-03- A -1464 & OD-03-J-1464 is provided to this Division for regular use vide permission obtained from Chief Construction Engineer, Lower Suktel Project Balangir. Sri Belthajar Ekka, A.E. (C) is in-charge of said vehicle under Sri H.K.Pradhan, A.E.E.(C)

Activities of Quality Control Central Laboratory at Magurbeda

The following Quality Control tests are being carried out in our Central Laboratory at Magurbeda

Cement

- i) Consistency
- ii) Initial setting
- iii) Final setting
- iv) Compressive Strength
- v) Fineness
- vi) Le-Chatliar Expansion (Soundness)

Soil

- i) Compaction
- ii) Specific gravity
- iii) Liquid Limit
- iv) Plastic Limit
- v) Plasticity Index
- vi) Standard penetration test
- vii) Tri-axial Shear test
- viii) Soil Permeability test

Moorum Testing

- i) Compaction
- ii) Specific gravity
- iii) Liquid Limit
- iv) Plastic Limit
- v) Plasticity Index
- vi) Grading

Coarse Aggregate

- i) 40mm Metal=Grading, Specific gravity, Impact, Abrasive
- ii) 20mm Chips=Grading, Specific gravity, Impact, Abrasive, flakiness index & Elongation Index
- iii) 10mm Chips=Grading, flakiness index & Elongation Index
- iv) Gradation of Gr.-I, Gr-II & Gr-III metal with impact & abrasive.

Fine Aggregate

- i) Sand=Grading, Silt Content, Specific Gravity

Concrete

- i) Concrete Mix Design
- ii) Compressive Strength of Concrete Cubes, Mortar Cubes & bricks.
- iii) Slump Test

Activities of Lower Suktel Quality Control & Design Division, Balangir During 2015-16**A) Central Laboratory at Magurbeda**

Enclosed in Annexure –“A”

B) Lower Suktel Dam Division, Magurbeda

- i) **Construction of Earth Dam from R.D. 271m to 1418m.**

No major Earth work towards construction of Earth Dam from R.D. 271m to 1418m was executed. Only rock-toe from R.D. 405m to R.D. 1360m. completed by June, 2015. Earth Dam raised upto R.L. 190m against TBL of R.L. 210m.

- ii) **Construction of Spillway from R.D. 00m to 271m**

Construction of u/s Right abutment and it's u/s wing wall, raised from R.L. 161.00m to R.L. 178m during 2015-16. U/s right abutment concrete of M₁₅ A₄₀ along with M₂₀ A₄₀ concrete core all around has been raised simultaneously. Sri Agasti Kanhar, J.E. (C)/ Sri Ramesh Kisan, J.E.(C) , Contractual under Sri H.K.Pradhan, A.E.E.(C) of this Division is placed permanently at Spillway site to look after quality control aspects. Regular visits are being made to Spillway site towards quality monitoring. Compressive strength of cubes are tested in our Central Laboratory at Magurbeda regularly. Working drawing of left flank of Spillway has not been finalized. Foundation excavation of left flank of Spillway is under progress.

- iii) **Construction of Dyke for R.D. 00m to 1100m.**

No construction work is taken up.

- iv) **Construction of H/R of LMC between R.D.42.80 to 48.40m of Spillway**

Left flank of Spillway drawing not finalized. Foundation excavation of left flank is under progress.

- v) **Construction of H/R of RMC of R.D. 309m of Dyke**

Construction of Dyke is not taken up.

C) Lower Suktel R.R. C & B Division, Balangir

No major R & R construction activities are executed during 2015-16.

D) Lower Suktel Canal Division, Balangir

Canal Alignment survey executed during 2015-16.

“Expression of Interest” is invited by the Chief Construction Engineer, Lower Suktel Project, Balangir for feasibility study for laying underground pipe conduits for providing Irrigation facilities to L.S. left & right ayacut instead of flow irrigation through open channel.

E) Lower Suktel Canal Division, No.II, Loisingha

Canal Alignment survey executed during 2015-16

F) Works under Balangir Irrigation Circle, Balangir**I. Balangir Irrigation Division, Balangir**

Works have been inspected. Inspection report (copy enclosed).

- 1) This office Lr. No. 302 dtd. 28.03.2016
- 2) This office Lr. No. 126 dtd. 11.02.2016

- 3) This office Lr. No.42 dtd. 13.01.2016
- 4) This office Lr. No. 328 dtd. 01.05.2015
- 5) This office Lr. No. 299 dtd. 17.04.2015

II. Boudh Irrigation Division, Boudh

Works have been inspected. Inspection report (copy enclosed).

- 1) This office Lr. No. 132 dtd. 18.02.2016.

III. Titilagarh Irrigation Division, Titilagarh

Work have been inspected.

*Executive Engineer,
L.S.Q.C.& Design Division,
Balangir*

**Annual Report of Central Laboratory, Magurbeda for the year 2017-18 of Executive Engineer, Lower Suktel Quality Control & Design Division,
Balangir under Chief Construction Engineer, Lower Suktel Project, Balangir.**

Month	Year	Requisition Authority	No. of test conducted						Compressive Strength of Concrete Cubes	Concrete Mix Design	Revenue income (inRs.)	Remarks
			C.A.	F.A.	Soil	Moorum	Cement					
April	2017	M.I. Division, Balangir.						10		7850.00	01/17-18	
		M.I. Division, Balangir.						21		16485.00	2	
		Titilagarh Irr. Division.			15					5400.00	3	
May	2017	Balangir Irr. Division.	1	2	3		3	3		4943.00	4	
		Balangir Irr. Division.	1	2	3		3	3		4943.00	5	
		Balangir Irr. Division.	1	2			3	3		3863.00	6	
		Titilagarh Irr. Division.			12					4320.00	7	
		Titilagarh Irr. Division.			12					4320.00	8	
		L.S.Dam Division, Magurbeda							8	6280.00	9	
		M.I. Division, Balangir.						5		3925.00	10	
		M.I. Division, Balangir.						5		3925.00	11	
		Balangir Irr. Division.	2	2			3	3		4020.00	12	
		Balangir Irr. Division.	1	2	3		3	3		4943.00	13	
		M.I. Division, Balangir							2	13456.00	14	
		M.I. Division, Balangir						1		785.00	15	
		M.I. Division, Balangir						1		785.00	16	
		M.I. Division, Balangir						1		785.00	17	
		Balangir Irr. Division.	2	2			3	3		4020.00	18	
		M.I. Division, Balangir						1		785.00	19	
		M.I. Division, Balangir						19		14915.00	20	
		M.I. Division, Balangir						5		3925.00	21	
		M.I. Division, Balangir						5		3925.00	22	
		Balangir Irr. Division.	2	2			3	3		4020.00	23	
		M.I. Division, Balangir						10		7850.00	24	
		Balangir Irr. Division.						1		785.00	25	
		Balangir Irr. Division.						1		785.00	26	
		Balangir Irr. Division.	2	2			3	3		4020.00	27	
		Balangir Irr. Division.	2	2			3	3		4020.00	28	
		M.I. Division, Balangir						15		11775.00	29	
		M.I. Division, Balangir						10		7850.00	30	
		Boudh Irr. Division, Boudh	1	2			3	3		3863.00	31	
Sub-Total			15	20	33		27	79	10	163566.00		

Month	Year	Requisition Authority	No. of test conducted						Compressive Strength of Concrete Cubes	Concrete Mix Design	Revenue income (inRs.)	Remarks
			C.A.	F.A.	Soil	Moorum	Cement					
		B.F.	15	20	33		27	79	10	163566.00		
May	2017	M.I.Division, Balangir						22		17270.00	32/17-18	
		L.S.Dam Division, Magurbeda					3	3		3379.00	33	
		L.S.Dam Division, Magurbeda						6		6280.00	34	
		L.S.Dam Division, Magurbeda	3	2						798.00	35	
		Balangir Irr. Division.	2	2			3	3		4020.00	36	
June	2017	Titilagarh Irr. Division.			9					3240.00	37	
		Titilagarh Irr. Division.			9					3240.00	38	
		Balangir Irr. Division.						3		2355.00	39	
		Balangir Irr. Division.						2		1570.00	40	
		M.I. Division, Balangir.						16		12560.00	41	
		M.I. Division, Balangir.						16		12560.00	42	
		Balangir Irr. Division.						14		10990.00	43	
		M.I.Division, Balangir						6		4710.00	44	
July	2017	Balangir Irr. Division.						1		785.00	45	
		M.I.Division, Balangir						6		5495.00	46	
		Balangir Irr. Division.						4		3140.00	47	
		Balangir Irr. Division.						13		10205.00	48	
		Balangir Irr. Division.						10		7850.00	49	
		Balangir Irr. Division.						10		7850.00	50	
		Balangir Irr. Division.						27		21195.00	51	
		Balangir Irr. Division.						11		8635.00	52	
		Balangir Irr. Division.						3		2355.00	53	
		Balangir Irr. Division.						6		4710.00	54	
		Balangir Irr. Division.						7		5495.00	55	
		Balangir Irr. Division.						1		785.00	56	
		M.I.Division, Balangir						12		9420.00	57	
		M.I.Division, Balangir						12		9420.00	58	
		Balangir Irr. Division.						3		2355.00	59	
		L.S.Dam Division, Magurbeda						8		6280.00	60	
August	2017	Balangir Irr. Division.						6		4710.00	61	
		Sub Total :	20	24	51		33	310	10	357223.00		

Month	Year	Requisition Authority	No. of test conducted							Revenue income (inRs.)	Remarks
			C.A.	F.A.	Soil	Moorum	Cement	Compressive Strength of Concrete Cubes	Concrete Mix Design		
		B.F.	20	24	51		33	310	10	357223.00	
September	2017	L.S.Dam Division, Magurbeda						66		51810.00	62/17-18
		L.S.Dam Division, Magurbeda	3	2						798.00	63
		L.S.Dam Division, Magurbeda	3	2						798.00	64
		L.S.Dam Division, Magurbeda	3	2						798.00	65
		L.S.Dam Division, Magurbeda							6	40368.00	66
October	2017	L.S.Dam Division, Magurbeda							4	26912.00	67
		L.S.Dam Division, Magurbeda						82		64370.00	68
		L.S.Dam Division, Magurbeda			3					1080.00	69
November	2017	Tel Irrigation Division, Sonepur			3					1080.00	70
		Tel Irrigation Division, Sonepur			3					1080.00	71
		Tel Irrigation Division, Sonepur			3					1080.00	72
		Tel Irrigation Division, Sonepur			3					1080.00	73
January	2018	L.S.Dam Division, Magurbeda							1	6728.00	74
		Balangir Irr. Division.						1		785.00	75
		L.S.Dam Division, Magurbeda						98		76930.00	76
		L.S.Dam Division, Magurbeda							1	6728.00	77
		L.S.Dam Division, Magurbeda							2	13456.00	78
		L.S.Dam Division, Magurbeda						35		27475.00	79
		Ret Dam Division, Kuttingpadar			5					1300.00	80
		Balangir Irr. Division, Balangir			3					1080.00	81
		Balangir Irr. Division, Balangir	1	2	3		4			4943.00	82
		L.S.Dam Division, Magurbeda	3	2						798.00	83
		Balangir Irr. Division, Balangir			4					1482.00	84
		RWSS Division, Balangir			2					992.00	85
		L.S.Dam Division, Magurbeda						18		14130.00	86
		Balangir Irr. Division, Balangir			4					1482.00	87
		Balangir Irr. Division, Balangir			5					1742.00	88
		Balangir Irr. Division, Balangir			4					1482.00	89
		Balangir Irr. Division, Balangir			4					1482.00	90
		Boudh Irr. Division, Boudh							1	6728.00	91
		Boudh Irr. Division, Boudh							1	6728.00	92
		Sub Total :	33	34	100		37	610	26	724948.00	

Month	Year	Requisition Authority	No. of test conducted					Compressive Strength of Concrete Cubes	Concrete Mix Design	Revenue income (inRs.)	Remarks
			C.A.	F.A.	Soil	Moorum	Cement				
		B.F.	33	34	100		37	610	26	724948.00	
		L.S.Dam Division, Magurbeda							3	6728.00	93/17-18
		Balangir Irr. Division, Balangir			2					662.00	94
		M.I.Division, Balangir						10		7850.00	95
		Tel Irrigation Division, Sonepur			4					1482.00	96
		Tel Irrigation Division, Sonepur							1	6728.00	97
Feb	2018	Ret Canal Divn. No.II, Narla			6					1986.00	98
		Ret Canal Divn. No.II, Narla			8					2648.00	99
		L.S.Dam Division, Magurbeda	7							1581.00	100
		Ret Canal Division, Bhawanipatna			8					2648.00	101
		Ret Canal Division, Bhawanipatna			14					4634.00	102
		L.S.Dam Division, Magurbeda							3	20184.00	103
		Balangir Irr. Division, Balangir	2	2				6		4020.00	104
		Balangir Irr. Division, Balangir							2	1570.00	105
		M.I.Division, Balangir							4	3140.00	106
		Kalahandi Investigation Division			2					417.00	107
		Kalahandi Investigation Division			9					3202.00	108
		Balangir Irr. Division, Balangir	1	2	4			6		5345.00	109
		Balangir Irr. Division, Balangir			4					1482.00	110
		M.I.Division, Balangir							3	2355.00	111
		Tel Irrigation Division, Sonepur			4					1482.00	112
		L.S.Dam Division, Magurbeda						106		83210.00	113
March	2018	L.S.Dam Division, Magurbeda	3							471.00	114
		Balangir Irr. Division, Balangir	1	2				6		3863.00	115
		Balangir Irr. Division, Balangir	1	2				6		3863.00	116
		Balangir Irr. Division, Balangir	1	2	4			6		5345.00	117
		Balangir Irr. Division, Balangir	1	2				6		3863.00	118
		L.S.Dam Division, Magurbeda	3							471.00	119
		Boudh Irr. Division, Boudh							1	6728.00	120
		Sub Total :	52	48	169			73	735	34	912906.00

Month	Year	Requisition Authority	No. of test conducted						Revenue income (inRs.)	Remarks	
			C.A.	F.A.	Soil	Moorum	Cement	Compressive Strength of Concrete Cubes			Concrete Mix Design
		B. F.	52	48	169		73	735	34	912906.00	
March	2018	Boudh Irr. Division, Boudh							1	6728.00	121/17-18
		M.I.Division, Balangir						17		13345.00	122
		Kalahandi Irr. Divn. Bhawanipatna			12					4446.00	123
		Kalahandi Irr. Divn. Bhawanipatna			8					2964.00	124
		L.S.Dam Division, Magurbeda	3							846.00	125
		Balangir Irr. Division, Balangir						14		10990.00	126
		Boudh Irr. Division, Boudh							1	6728.00	127
		L.S.Dam Division, Magurbeda						84		65940.00	128
		Total:	55	48	189		73	850	36	1024893.00	

Executive Engineer,
L.S.Q.C.& Design Division,
Balangir.