omega
passion for innovation

ENERGY & GREEN AUDIT REPORT

OF

BHARAT INSTITUTE OF ENGINEERING AND TECHNOLOGY

Ibrahimpatnam Mandal, TELANGANA – 501510

Submitted By

Omega Envitech Innovations Pvt Ltd

Dated 18th August 2018

#31-32-63, SHREE AMBICA PLAZA, Nr. JYOTHI THEATRE, DABA GARDENS, VISAKHAPATNAM–530020
Tele fax: 0891-2513035; Cell: +91-9652744800 ; E-mail:omegavsp@gmail.com
www.omegavsp.com

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

Energy Audit summary

Sl.no.	Equipment	Proposed action	Result for proposed action
1	Lightning equipment – 40 W	Replace 40 W conventional light with 18W LED tube light	• Total No. of light fittings = 440 Nos • Total No. of presently operated= 440Nos • Total No. of light fittings to be replace= 440 Nos • Present Energy Consumption = 3520 KWH • Expected Energy Consumption =1584 kWH • Total Energy Saved per Month = 3520- 1584=1936 KWH per month
2	Lightning equipment – 72 W (2*2)	Replace 72 W conventional light with 36 W LED light	• Total No. of light fittings = 88 Nos • Total No. of presently operated= 88 Nos • Total No. of light fittings to be replace= 88 Nos • Present Energy Consumption = 1265.2 KWH • Expected Energy Consumption =633.6 kWH • Total Energy Saved per Month = 1265.2 – 633.6 =631.9 KWH per month
3	Fan system(Ceiling Fan)	Replace present ceiling fan consuming 78W with energy efficient fans consuming 40W. In the campus where usage is high this conservation measure will produce good savings	• Total number of fans in the campus = 591 Nos. • Total number of fans used in the campu (considering Usage factor)= 591 Nos. • Number of fans to be replace = 510 Nos. • The Total Current Consumption = 7956 kwh • The Expected fan Consumption = 4080 kwh • Total KWh saved per month = 7956 – 4080 = 3876 kwh

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

Green Audit Summary

SNo	Area	Observations	Remark
1	Solid Waste Management	biogas plant is installed in college campus to make the use of solid waste	Good initiative taken by college towards use compost of solid waste and its effective use for fertilizer and biogas
2	Liquid Waste Management	However rain water harvesting system is used to recharge the ground level water	Good initiative taken by college towards water conservation
3	Plastic free campus	College is taking imitative by displaying posters/banners about awareness of plastic free campus	Good initiative by college towards to implement plastic free campus

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

TABLE OF CONTENTS

Sl.no.	Title	Page Number
1	**CHAPTER I**	
2	1.1 About college	5
3	1.2 Vision and mission	5
4	**CHAPTER II**	
5	2.1 Electricity bill analysis	6
6	2.1.1 Observation on electricity bill analysis	6
7	2.2 Energy Audit	6
8	2.2.1 Connected load list	7
9	2.3 Energy saving measurement	15
10	**CHAPTER III**	
11	3.1 Green audit	17
12	3.2 Goal of green audit	17
13	3.3 Benefits of green audit	18
14	**CHAPTER IV**	
15	4.1 Initiatives taken by college towards sustainable environment	19
16	4.1.1 Proposed solar plant	19
17	4.1.2 Biogas plant	19
18	4.1.3 Rainwater harvesting	21
19	4.1.4 Plastic free campus	22

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimp... 4)
Ranga Reddy (Dist)-Telangana-...

CHAPTER I

1.1 ABOUT COLLEGE

Bharat Institute of Engineering & Technology (BIET), established in 2001 by Chinta Reddy Madhusudhan Reddy Educational Society (CRMR) under the leadership of Sri Ch. Venugopal Reddy, an eminent educationist with a social conscience and commitment. It has grown in its size and stature over the years, from an initial intake of 240 to 1308 students. BIET is one of the largest Engineering Colleges in Telangana. It offers 6 B.Tech programs, 8 M.Tech programs and 1 MBA program. With consistent and excellent academic performance of students in the University examinations, the Institute has endeared itself to many students and parents. Bharat Institute of Engineering & Technology (BIET) boasts of well experienced and highly qualified faculty, State-of-the-art Infrastructure, regular placements and well equipped laboratories.

1.2 VISION AND MISSION

Vision

To achieve the autonomous & university status and spread universal education by inculcating discipline, character and knowledge into the young minds and mould them into enlightened citizens.

Mission

Our mission is to impart high quality education in a conducive ambience, as comprehensive as possible, with the support of all the modern technologies and make the students acquire the ability and passion to work wisely, creatively and effectively for the betterment of our society.

Core Values

- Academic excellence
- Integrity and Ethics
- Diversity and Mutual Respect
- Expand horizons of knowledge
- Shared governance
- Social Responsibility
- Environmental Responsibility
- Service

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

CHAPTER II

2.1 ELECTRICITY BILL ANALYSIS

The following table shows the energy consumed in units from July 2017 to July 2018.

Sl.no.	Bill month	CMD	BILLED UNITS
1	26-JUL-17	200	39000
2	26-AUG-17	200	39000
2	26-SEP-17	200	46517
4	26-OCT-17	200	33238
5	26-NOV-17	200	31182
6	26-DEC-17	200	20975
7	26-JAN-18	200	23439
8	26-FEB-18	200	27741
9	26-MAR-18	200	34031
10	26-APR-18	200	35205
11	26-MAY-18	200	28775
12	26-JUN-18	200	27629
13	26-JUL-18	200	26408

2.1.1 Observation on electricity bill analysis

From the above table observed that

- Average monthly energy consumption of the college campus is 31780 units
- Total monthly billing is Rs. 2,54,240
- Average unit rate is Rs. 8/-

2.2 ENERGY AUDIT

An energy audit is an inspection, survey and analysis of energy flows, for energy conservation in a building, process or system to reduce the amount of energy input into the system without negatively affecting the output(s). In commercial and industrial real estate, an energy audit is the first step in identifying opportunities to reduce energy expense and carbon footprints.

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

2.2.1 Connected load list

In BIET there is 500 KVA one transformer, and 3 numbers of 100KVA generator for 7 blocks electrical load, the following blocks are

- Main block
- NA Block
- NB block
- block
- L block
- Ramp building
- Construction block

Figure 1

Figure 1 shows 500 KVA transformer and Figure 2 shows 100 KVA generator

Figure 2

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

The following table represents connected load for each block

NA-Block

Sl. no.	Room number	Light				Fan			Computer	Printer	AC		UPS	Projector	Lab Equipment
		10 W	40 W	2*2 (2) (72 W)	2*2 (3) (108 W)	Ceiling Fan (75 W)	Pedestal Fan (50 W)	Exhaust Fan (50 W)	(300 W)	(250 W)	1 Ton (1000W)	1.5 Ton (1500W)	in VA	300W	In watt
1	NA101	14	1	1			2	1	1	2					2400
2	NA102	32	2						1				3000		2500
3	NA103	6	2	4											500
4	Recep.		1				2								
5	NA104		3			4								1	
6	NA105		4			4								1	
7	NA106		5			6			33			2	7000		165
8	NA107														
9	NA108	6	2			2	1		8			1	2000		
10	NA109		7			7			4				1000		
11	NA110		3												
12	NA111			15				1	35		5		10000	1	
13	NA112		1												
14	NA113		6			6			37	2			6000	1	250
15	NA114		4			5									
16	NA201		2				3		40		5		7000	1	
17	NA202		2			5									
18	NA203		4			4								1	250
19	NA204		2			4								1	250
20	NA205		2			4								1	500
21	NA206		2			4									
22	NA207		4			3			7	1					
23	NA208		1			2	2		25	1	4		1000	1	
24	NA209		2			2			5	1					
25			3												

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

26	NA210			12			1		25	2		5	7000	1	250
27	NA211		3			2			7	2					
28	NA212			14			1		30	2	6		4000		
29	NA213		2												
30	NA214		5			6			3				1000		250
31	NA215		2			4			32				6000	1	250
32	NA301	5		7					1		4		2000	1	
33	NA302	9	3	1			3		4		2		1000		
34	NA303		2			4			1					1	
35	NA304		3			4			1					1	
36	NA305		2			4			13				2000	1	
37	NA306		3			4			24				7000	1	250
38	NA307		1			3	1		6	1					
39	NA308		3			4			25						250
40	NA309		3			3			5	1			3000		
41	NA310		2												
42	NA311		4			6									
43	NA312		3			3			8	1			3000		
44	NA313								25		4		7000		250
45	NA314			3			3		1						
46	NA315		2												
47	NA316			10			2		24		2		4000	1	500
48	NA317		3			4			1		4				
49	NA401		1			2									
50	NA402		2			4								1	
51	NA403		2			4								1	
52	NA404		1			2									
53	NA405		2	2		4									
54	NA406		2	2		4									
55	NA407		3			6									
56	NA408			2		4								1	
57	NA409		2			6									

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

58	NA410		1			3									
59	NA411		2			4									
60	NA412		2			7								1	
61	NA413		3			5									
62	NA414														
63	NA415					4									
64	NA416		2			6									
65	NA417					6								1	
66	NA418		2			6									
		72	138	73		190	21	2	432	16	36	8	84000	22	

NB-Block

Sl. no.	Room number	Light				Fan			Computer	Printer	AC		UPS	Projector	Other
		10 W	40 W	72 W	108 W	Ceiling Fan (75 W)	Pedestal Fan (50 W)	Exhaust Fan (50 W)	(300 W)	(250 W)	1 Ton (1000W)	1.5 Ton (1500 W)	in VA	300W	In Watt
1	NB101		4			4								1	
2	NB102		4			4								1	
3	NB103		4			4								1	
4	NB104														1000
5	NB105		7												
6	NB106		2												
7	NB107		2			2									
8	NB108		3			6									4000
9	NB109		3			4									8000
10	NB110		2			2			4	1					
11	NB201		4			4								1	
12	NB202		4			4								1	
13	NB203		4			4								1	
14	NB204		2												
15	NB205		2												

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

16	NB206		2			1			3	1					
17	NB207		5			5			2						6500
18	NB209		3			6									4500
19	NB210		2			2			1	1					
20	NB301		4			4			1					1	1000
21	NB302		3			4			1					1	1000
22	NB303		1			4			1						1000
23	NB304		19			32			15	2			7000		
24	NB306		1												
25	NB307		2												
26	NB401			2		4									
27	NB402		1			5									
28	NB403		2			3									
29	NB404		3			4									
30	NB405														
31	NB406		1												
32	NB407		1												
33	NB408		1			2			5						
34	NB409		2			2									
35	NB410		2			4									
36	NB411			1		2									
37	NB412			3		4									
38	NB413			3	2	5									
			102	9	2	131			33	5			7000	8	

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

M-Block

Sl.no.	Room number	Light				Fan			Computer	Printer	AC		UPS	Projector	Other
		10 W	40 W	72 W	2*2 (3) (108 W)	Ceiling Fan (75 W)	Pedestal Fan (50 W)	Exhaust Fan (50 W)	(300 W)	(250 W)	1 Ton (1000W)	1.5 Ton (1500 W)	in VA	300W	In Watt
1	Recep.		4			3									
2	Facili.		1			1			1	1					
3	M104		5			5			10	2			3000		5000
4	HR		1			1			2	1					
5	Principal	13	1		7				2	1		3			1500
6	M107		6			3			2						18000
7	M110		10			13			2						11000
8	M111	12	2		9				13			2	5000		
9	M113		4			7								1	
10	M114		3			5								1	2080
11	M115		1			1			2	1					
12	M116					4									
13	M117		12			11			4						19000
14	M119		4			5									
15	M121		4			5									
16	M122		11			8									6500
17	M201		1												
18	M202		6			4			7	2			2000		5000
19	M203	6	2			2			2	1				1	
20	M204		3		9	5			60	1			14000	1	500
21	M205		4			6			41	2			10000		250
22	M206		1			1			1	1					
23	M301		1												
24	M302		6			9									

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam (M)
Ranga Reddy (Dist)-Telangana-501510

25	M303		2						4			1			
26	M304		6			9								1	
27	M305		6			9								1	
28	M306		2			2			3	1					
29	M401		4			5								1	
30	M402		4			7								1	3000
31	M403		6			6								6	
32	M404		6			6								1	
		31	**129**		**25**	**143**			**156**	**14**		**6**	**34000**	**15**	

O-Block

Sl.no.	Room number	Light				Fan			Computer	Printer	AC		UPS	Projector	Lab Equipment
		10 W	40 W	2*2 (2) (72 W)	2*2 (3) (108 W)	Ceiling Fan (75 W)	Pedestal Fan (50 W)	Exhaust Fan (50 W)	(300 W)	(250 W)	1 Ton (1000W)	1.5 Ton (1500W)	in VA	300W	In Watt
1	office		4			2			1	1					
2	O201		3			3			9	1			2000		
3	O202		3			5			1						
4	O203		2			3									
5	O204		3			4									
6	O205		3			5									2000
7	O206		1			1									
8	O301		4			5									
9	O302		3			9			15				7000		
10	O303		3			9			10				3000		
11	O307		6			9			24				10000		
12	O401		1			4									
13	O402		5			10			10				3000		
14	O403		1			4									
15	O404		1			4									
16	O405		1			1									

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

17	O406		1	6		2			20				5000		
18	O407														
19	O408		1			3			1						
			46	**6**		**83**			**91**	**2**			**30000**		

L-Block

Sl. no.	Room number	Light				Fan			Computer	Printer	AC		UPS	Projector	Lab Equipment
		10 W	40 W	2*2 (2) (72 W)	2*2 (3) (108 W)	Ceiling Fan (75 W)	Pedestal Fan (50 W)	Exhaust Fan (50 W)	(300 W)	(250 W)	1 Ton (1000W)	1.5 Ton (1500W)	in VA	300W	In Watt
1	L101		2			6			1						9
2	L102		5			6			8						19
3	L103		4			10									14
4	L104		2			2									4
5	L105		2			1									3
6	CIVIL Staff room		4			7			10	2					23
7	6		2			4									6
8	7		2			4									6
9	8		2			4									6
10	Ramp												30000		30000
11	Water Pump														6 HP - 3 1 HP - 2
12	Old Canteen		4			5	2								5000
13	New canteen		1			1									4000
			25			**44**			**19**	**2**			**30000**		

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

2.3 ENERGY SAVING MEASUREMENT

The following table represents the payback period for proposal load

Payback Calculation		
40W FTL vs 18W LED Tube Light		
A. Savings in operation (Per month analysis)		
Particulars	**FTL**	**LED**
Luminaire Type	**40W**	**18W**
Wattage	40	18
Total nos of Luminaires	440	440
Working Hours Per Day (Hrs)	8	8
Working Days per month (Days)	25	25
Electrical Units consumed per month (KwHr)	3520	1584
Per Unit Electrical Cost (Rs.)	8	8
Total Electricity Cost per month (Rs.)	28160	12672
Electrical Savings with Use of LED (Rs.)		**15488.00**

Investment	**152680.000**
Payback in month	**10 months**
Per Annum saving	**185856.00**

Payback Calculation		
72W Fixture Vs 32w LED 2x2 Fixture		
A. Savings in operation (Per month analysis)		
Particulars	**CFL**	**LED**
Luminaire Type	**72W**	**32W**
Wattage	72W	32W
Total nos of Luminaires	88	88
Working Hours Per Day (Hrs)	8	8
Working Days per month(Days)	25	25
Electrical Units consumed per Annum (KwHr)	1265	633
Per Unit Electrical Cost (Rs.)	8	8
Total Electricity Cost per month (Rs.)	10120	5064
Electrical Savings with Use of LED (Rs.)		**5059.00**

Investment	**145200.000**
Payback in months	**28 Months**
Per Annum saving	**60708.00**

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

Payback Calculation		
75W Existing Fan vs 50W Fan		
A. Savings in operation (Per month analysis)		
Particulars	**Existing fan**	**Proposed fan**
Luminaire Type	**75W**	**50W**
Wattage	75	50
Total nos of Luminaires	591	591
Working Hours Per Day (Hrs)	8	8
Working Days per month (Days)	25	25
Electrical Units consumed per month (KwHr)	7956	4080
Per Unit Electrical Cost (Rs.)	8	8
Total Electricity Cost per month (Rs.)	63648	32640
Electrical Savings with Use of Fan (Rs.)		**31008.00**

Investment	**1182000.000**
Payback in month	**38 months**
Per Annum saving	**372096.00**

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

CHAPTER III

3.1 GREEN AUDIT

Green audit was initiated with the beginning of 1970s with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. It exposes the authenticity of the proclamations made by multinational companies, armies and national governments with the concern of health issues as the consequences of environmental pollution. It is the duty of organizations to carry out the Green Audits of their ongoing processes for various reasons such as; to make sure whether they are performing in accordance with relevant rules and regulations, to improve the procedures and ability of materials, to analyze the potential duties and to determine a way which can lower the cost and add to the revenue. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. Some of the incidents like Bhopal Gas Tragedy (Bhopal; 1984), Chernobyl Catastrophe (Ukraine; 1986) and Exxon-Valdez Oil Spill (Alaska; 1989) have cautioned the industries that setting corporate strategies for environmental security elements have no meaning until they are implemented.

Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade a, Grade B or Grade C according to the scores assigned at the time of accreditation.

The intention of organizing Green Audit is to upgrade the environment condition in and around the institutes, colleges, companies and other organizations. It is carried out with the aid of performing tasks like waste management, energy saving and others to turn into a better environmental friendly institute.

3.2 MAIN GOALS OF GREEN AUDIT

Following are the goals of the green audit

- The objective of carrying out Green Audit is securing the environment and cut down the threats posed to human health.
- To make sure that rules and regulations are taken care of
- To avoid the interruptions in environment that are more difficult to handle and their correction requires high cost.
- To suggest the best protocols for adding to sustainable development

Principal
Bharat Institute of Engg. and
Mangalpally(V), Ibrahimpatnam
Ranga Reddy (Dist)-Telangana-501510

3.3 BENEFITS OF GREEN AUDIT

Following are the benefits of green audit

- It would help to shield the environment
- Recognize the cost saving methods through waste minimizing and managing
- Point out the prevailing and forthcoming complications
- Authenticate conformity with the implemented laws
- Empower the organizations to frame a better environmental performance
- Enhance the alertness for environmental guidelines and duties

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

CHAPTER IV

4.1 INITIATIVES TAKEN BY COLLEGE TOWARDS SUSTAINABLE ENVIRONMENT

The college has its part to play in creating initiatives for Green campus. The campus has trees and the students are made to plant trees and protect them. We also have gardens and maintained by gardeners with treated STP water. Water is conserved by rain water harvesting. LED lights and bulbs are used to conserve energy. Plastics are avoided and reusable bags are advised and used. Water conservation and harvesting are done.RO Water is provided for students in cans and water dispenser rather than water bottles. Solar power is used for road lights. Waste is segregated and disposed of suitably. Pedestrian pathways are provided.

4.1.1 Proposed solar plant

There is a proposal of solar tree of capacity 1kW. This plant will save approx. 1830 units annually. And there is a proposal of 150 KW solar plant installation in BIET.

4.1.2 Biogas plant

Biogas is the mixture of gases produced by the breakdown of organic matter in the absence of oxygen (anaerobically), primarily consisting of methane and carbon dioxide. In BIET 2 Cubic Meter Biogas Plant was constructed near to old canteen. Biogas plant is using in canteen to cook food.

Figure 3: 2 m^3 biogas plant

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

Biogas can be produced from raw materials such as agricultural waste, manure, municipal waste, plant material, sewage, green waste or food waste. Biogas is a renewable energy source. In India, it is also known as "Gobar Gas".

Biogas is produced by anaerobic digestion with methanogen or anaerobic organisms, which digest material inside a closed system, or fermentation of biodegradable materials. This closed system is called an anaerobic digester, biodigester or a bioreactor.

Biogas is primarily methane (CH_4) and carbon dioxide (CO2) and may have small amounts of hydrogen sulfide (H_2S), moisture and siloxanes. The gases methane, hydrogen, and carbon monoxide (CO) can be combusted or oxidized with oxygen. This energy release allows biogas to be used as a fuel; it can be used for any heating purpose, such as cooking. It can also be used in a gas engine to convert the energy in the gas into electricity and heat.

Figure 4: stove burner using biogas plant

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

4.1.3 Rainwater harvesting

Sustaining and recharging the ground water along with judicious use of the limited fresh water resources is the need of the hour. Bharat Institute of Engineering and Technology (BIET) is seriously implementing the rain water harvesting techniques in the campus.

Rainwater Harvesting Pits are available to collect the rain water from roof top of New Block and Pharmacy Block with the following Dimensions

New Block : 17.2 m x 8 m

Pharmacy Block : 15m x 9m

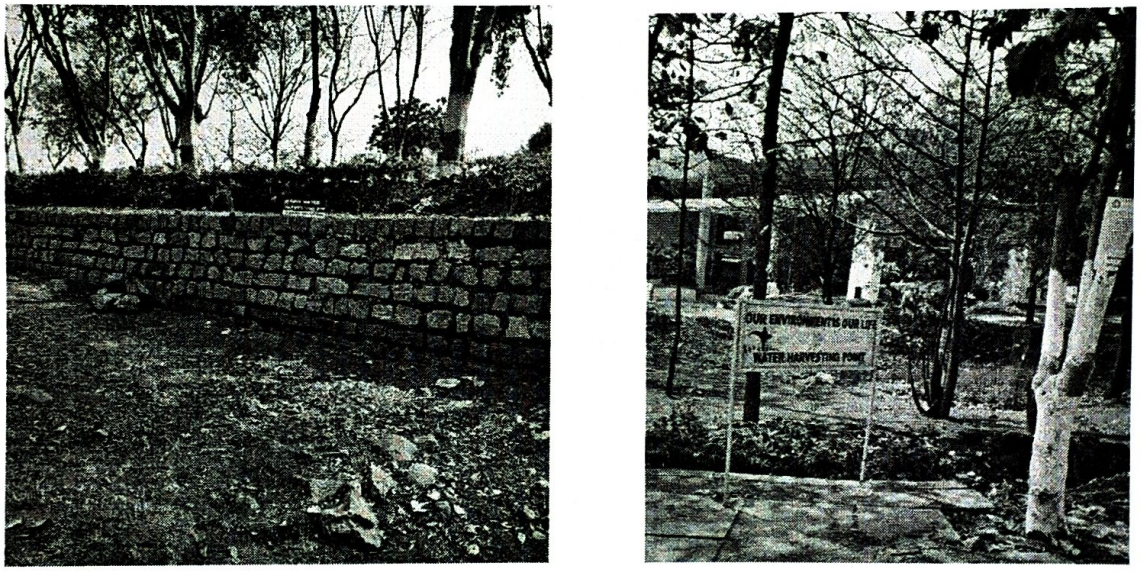


Figure 5, 6 Water harvesting plants

These two pits will contribute the improvement of ground water table substantially in the college premises. BIET is also in the process of identifying the other locations in the campus for construction of Rain water harvesting pits.

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

4.1.4 Plastic free campus

Initiative has been taken by college administrative to make the campus plastic and paper free. Most of the information is now shared to the faculty and students by email and social media applications rather than paper notice.

Also college has organized awareness program for students on above topic. It has been decided that 1 day in a month will be celebrate as bicycle day which will avoid the use of motor vehicles

Below is the image of awareness program conducted in college

Figure 7: Awareness program on no plastic

Principal
Bharat Institute of Engg. and
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

ODPL/IMS/01

ODPL CERTIFICATION(ORISSA DOOT PVT. LTD.)

PLOT NO-733, SAHEED NAGAR, BHUBANESWAR-751007, ODISHA, INDIA

INTEGRATED MANUAL

For certification to ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001

EDN. NO. 1 COPY NO.

COPYRIGHT STATEMENT

This manual is the property of ODPL CERTIFICATION(ORISSA DOOT PVT. LTD.), Bhubaneswar, Odisha, India. No part of this manual should be reproduced in any form without the written permission from the person authorized by its management.

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

CONTENTS

Sl. No.	TITLE	PAGE No.
1.0	Purpose	
2.0	Scope	
3.0	References	
4.0	Responsibilities	
5.0	Definitions	
6.0	Actions	
6.1	Initial Enquiries	
6.2	Defining ODPL Responsibilities	
6.3	Application Review	
6.4	Appointment of Audit team	
6.5	Document Review	
6.6	Audit Arrangements	
6.7	Combined Audits	
6.8	Opening Meeting	
6.9	Observers and Guides	
6.10	Conduct of Audit	
6.11	Stage 1 Audit	
6.12	Stage 2 Audit	
6.13	Short Notice Audits	
6.14	Non Conformities	
6.15	Closing Meeting	
6.16	Reporting Results	
6.17	Follow up Action	
6.18	Declaration	
6.19	Certification Decision	
6.20	Technical Review	
6.21	Certification Period	
6.22	Production of Certificates	
6.23	Surveillance Assessments	
6.24	Surveillance Audits	
6.25	Maintaining Certification	
6.26	Re-Certification Assessments	
6.27	Process Control	
6.28	Transfer of Certification	

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist), Telangana-501510

Sl. No.	TITLE	PAGE No.
6.29	Transfer Review	
6.30	Suspending, Withdrawing or Reduction of Certification	
6.31	Suspension of Certificates	
6.32	Reducing Scope of Certification	
6.33	Extending Scope of Certification	
6.34	Withdrawal of Certificates	
6.35	Re-instatement of Certificates	
6.36	Use of Logos	
6.37	Appeals and Disputes	
7.0	Documentation	

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

LIST OF COPY HOLDERS

0. Master
1. Managing Director
2. Executive Director
3. Manager Documentation

Principal
Bharat Institute of Engg. and Tech.
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

AMENDMENT SHEET

#	Brief Description	Para & Page No.	Old Rev. No.	New Rev. No.	Issue Date	Sign.

Principal
Bharat Institute of Engg. and Te...
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

1.0 Purpose

This Procedure describes how ODPL CERTIFICATION PVT. LTD. (ODPL), conducts assessments in accordance with ISO 17021:2011 for clients seeking certification to ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001. It also details how the results are reported, corrective and preventative actions verified and records maintained.

2.0 Scope

This Procedure applies to the ODPL's assessments and all personnel involved in this activity.

3.0 References

- ISO 9001:2015 Standard
- ISO 14001:2015 Standard
- OHSAS 18001:2007 Standard
- ISO 22000:2005 Standard
- ISO 27001:2013 Standard
- ISO 17021:2011 Standard
- ISO 19011:2011 Standard
- IAF Mandatory Publications

4.0 Responsibilities

1. All Personnel	Act impartially and not allow commercial, financial or other pressures to influence certification activities
2. Quality Manager/Manager Documentation	Deciding if ODPL is able to fulfil client's requirements for certification (6.3)
	Approving certification quotation (6.3)
	Appointing Lead Auditors (6.4, 6.19 & 6.23)
	Deciding on appropriate action if non-conformities are not closed out (6.15)
	Making Certification decision (6.19)
	Approving audit schedule (6.19)
	Initiating appeal or dispute process (6.24)
	Defining ODPL Resource requirements (6.2)
	Drawing up certification quotation (6.3)
	Carrying out Application Reviews with prospective clients (6.3 & 6.23)
	Creating audit schedule (6.19)
3. Lead Auditor	Appointing audit team (6.4)

Principal
Bharat Institute of Engg. and Tech.
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist) Telangana-501510

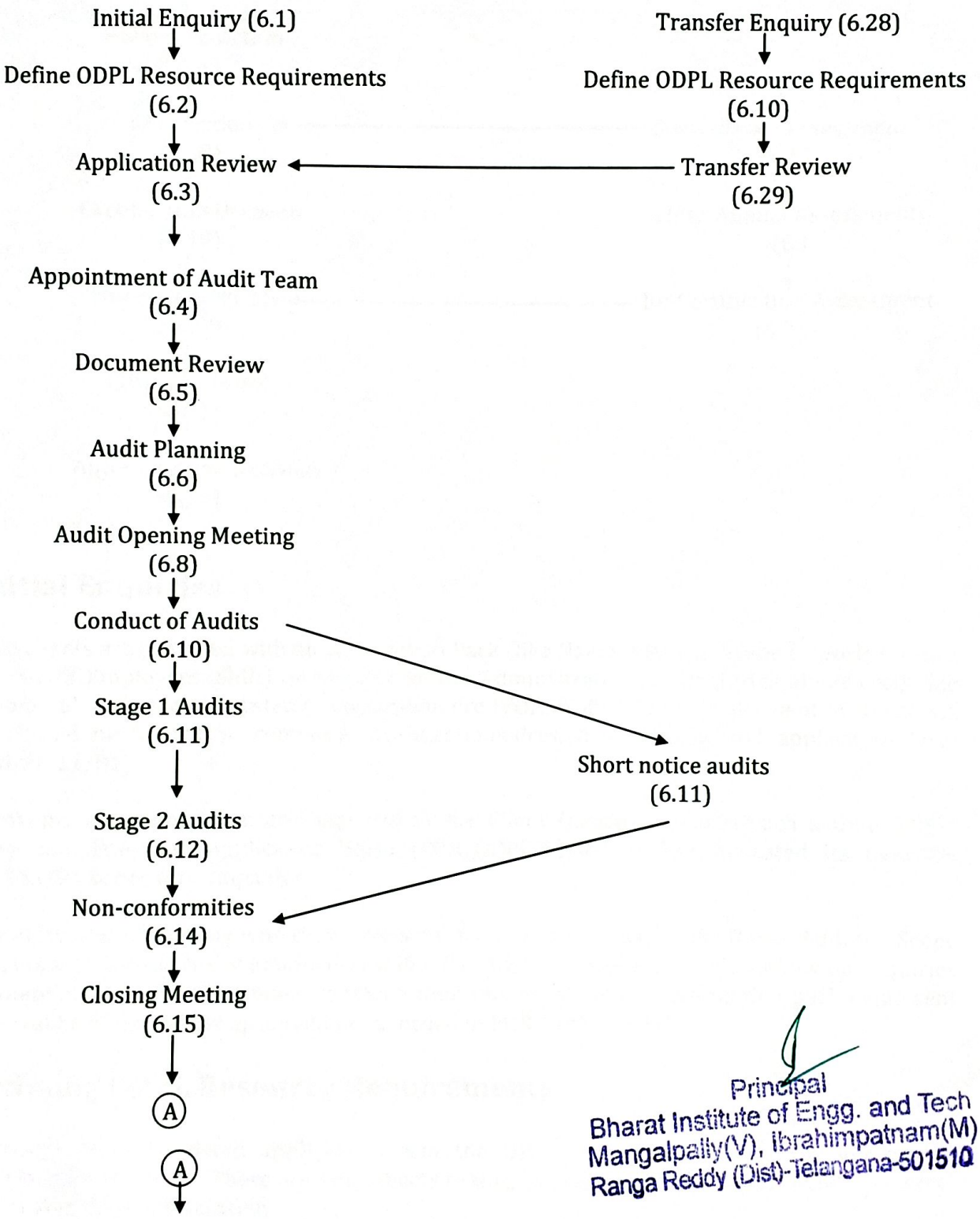
	Undertaking document review (6.5)
	Making audit arrangements with client (6.6 & 6.19)
	Checking client files for 'Notes to Auditors' (6.6)
	Chairing opening (6.8) and closing (6.13) meetings
	Conduct of audit (6.8 to 6.11)
	Writing audit report (6.14)
	Closing out non-conformities (6.15)
	Completing declaration (6.16)
	Initial consideration of appeal or dispute (6.24)
	Updating Auditor Training logs (6.23)
4. Auditor	Undertaking audit activity (6.8 to 6.11)
	Recording non-conformities (6.12)
	Process Control Checks (6.23)
5. Administrator / Office Co-ordinator	Providing information pack to potential clients (6.1)
	Following up enquiries if no reply received (6.1)
	Organising logistical requirements (6.6)
	Production of certificate (6.18)
	Process control checks (6.23)

5.0 Definitions

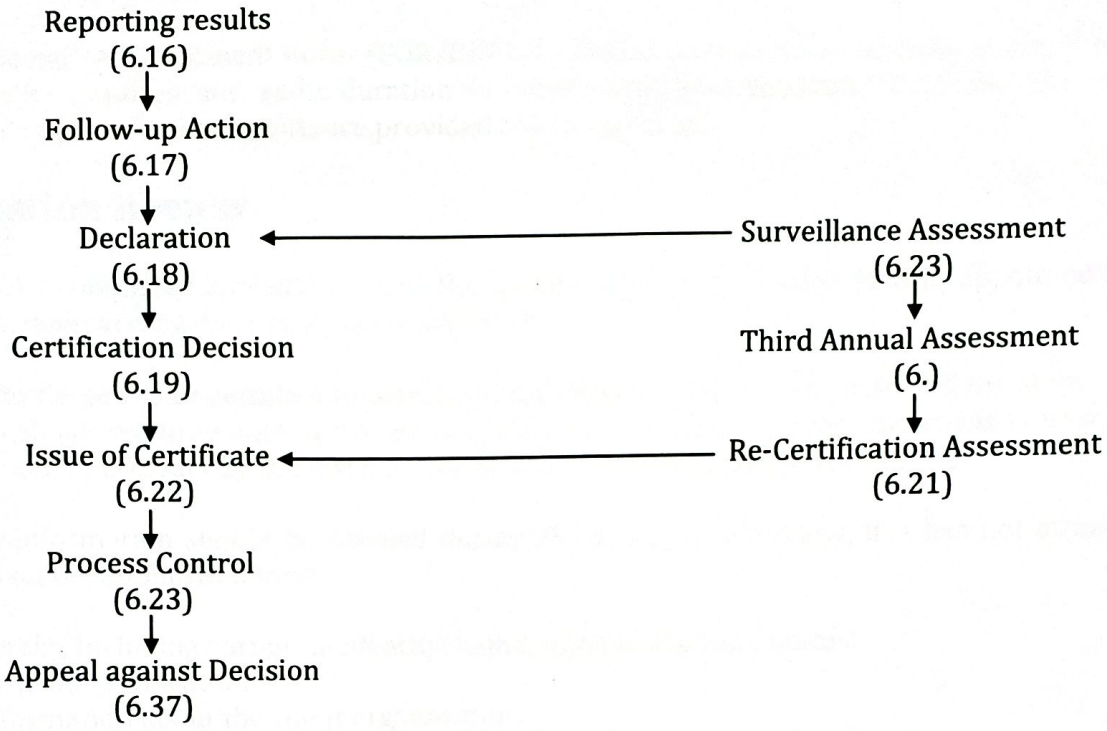
QMS – Quality Management System
EMS – Environment Management System
IAF – International Accreditation Forum
ODPL Cert – ORISSA DOOT PVT. LTD. CRTIFICATION BODY OF UKAF
ISO – International Organization for Standardization

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

6.0 Actions



Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510



6.1 Initial Enquiries

Potential clients are provided with an Information Pack (like Name, Address, Scope of work, Contact Person, No. of Employees, Shift) on request by the Administrator. For enquiries about certifying environmental management systems, a questionnaire (FOR/ODPL-11/14) is also sent to the client. Clients should be invited to complete the questionnaires, if applicable, and application form (FOR/ODPL-11/01).

Copies of any correspondence are kept within the Client Queries file until such a time as the company completes the Application Form (FOR/ODPL-11/01) and is allocated its own file (ODPL/XXX/01 series for companies).

The Administrator should log who they have sent the Information pack (like Name, Address, Scope of work, Contact Person, No. of Employees, Shift). The Administrator should also follow up enquiries if the potential client does not make contact within one month of the information pack being sent out. The results of this follow up should be recorded in FOR/ODPL-11/01.

6.2 Defining ODPL Resource Requirements

Upon receipt of a completed application form the Quality Manager reviews the assessment requirements for the client. There are two aspects to this; calculating the number of audits required, and calculating the audit duration.

Principal
Bharat Institute of Engg. and Tech
Mangalpally (V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

The Auditor Resource Assessment Form (FOR/ODPL-11/13) is a spreadsheet used to quantify the number of audits required and audit duration in conjunction with ISO17021:2011 and IAF MD 10:2013. Any deviation from the guidance provided is to be justified.

6.3 Application Review

Upon receipt of a completed application form, the Quality Manager or a Lead Auditor appointed by the Quality Manager, arranges for an Application Review.

The Application Review is undertaken to determine the requirements of the client and the ability of ODPL to meet those requirements. A review need only be undertaken when the client is new to ODPL or as deemed necessary by the QM if a change in certification or scope is required.

The following information should be collated during the Application Review, if it has not already been included on the application form:

- General details, including corporate identity, name, address and legal status;
- Desired scope of certification
- General information about the client organisation
- General information about the QMS and/or EMS, the activities it covers, physical locations, significant aspects of process or operations and legal obligations;
- Significant sites/premises/processes of activities;
- Points of Contact;
- Details of technical resources;
- Status of ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001 (it is necessary for the client to have completed one internal audit cycle and one management review cycle prior to assessment); and
- Details from the EMS questionnaires sent to the client if appropriate.

The review should provide a deeper understanding of the client's operations. Any potential problems are to be discussed with the client, additional information obtained and client queries addressed.

An Application Review Report (FOR/ODPL-11/02) must be completed once a review has been undertaken.

Following the review the QM decides if ODPL can fulfil the client's requirements. If satisfied that ODPL can do so, the QM a copy of the completed application form are then returned to the client along with two copies of the Contractual Certification Agreement (FOR/ODPL-11/30) signed on behalf of ODPL. The Quality Manager will also write to the client with details of the audit programme covering the three year certification period (if certification is granted) See paragraph 6.6.

Bharat Institute of Engg. &
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

The covering letter will invite the client to return one copy of the completed contractual certification agreement (FOR/ ODPL-11/30) duly signed and forward payment. It will also emphasise that signing the contract does not guarantee certification. The administrator should log details of a successful application and date of contract completion.

If the QM's decision is to decline an application for certification, the reasons shall be recorded using FOR/ODPL-11/01. The QM will need to make the decision clear to the client.

6.4 Appointment of Audit Team

The QM appoints a competent Lead Auditor for the assessment who is responsible for all financial dealings and must ensure that the fees have been received and an appropriate job number raised before work commences as far as practicable. The selection is based upon the information gathered during the Application Review with regards to the requirements of the client and the competence, training, qualifications and experiences of the available Lead Auditors. Consideration is also given to the previous contact the Lead Auditor may have had with the client, e.g. ISO audits. The QM must consider the following when selecting the lead auditor:

1. Knowledge of applicable regulations;
2. Knowledge of assessment methods and ODPL certification procedures and associated documents;
3. Technical/Environmental knowledge, including environmental aspects and impacts and their mitigation for ISO 14001 audits;
4. Competencies as outlined above and required by the activity being assessed;
5. Any potential conflicts of interest; and
6. Ability to communicate orally and in writing with client.

The Lead Auditor is responsible for selecting, leading and managing the audit team, taking account of the above. The number of auditors required will depend upon the size and nature of the client and the scope to be covered by the audit. The Lead Auditor must ensure that the team has the collective competence to perform an effective assessment of the client's management system against both the appropriate standard and the scope of certification. An auditor in training may be included in audit team as a participant but a Lead Auditor must also be present and be appointed as the overall evaluator and will have overall responsibility of the audit activities and findings

The Lead Auditor must also consider the need to include technical experts in the audit team and if considered necessary refer the matter to QM for a decision. Technical Experts shall not perform any independent auditing functions but will work at all times in close co-operation with, and under the supervision of, a ODPL auditor.

6.5 Document Review

Principal
Bharat Institute of Engg. and Te...
Mangalpally (V), Ibrahimpatnam(M)
Ranga Reddy (Dist.), Telangana-501510

The document review is the first stage in the assessment process and must be undertaken prior to the Initial Assessment (1st stage audit). Once assigned to a client the Lead Auditor should make

contact in order to make introductions and to arrange for appropriate documentation to be forwarded to ODPL so a document review can be undertaken. If the client is not yet ready to undertake the document review the Lead Auditor should discuss time scales for when the client is likely to be ready. The Lead Auditor should keep in regular contact with the client.

The Document Review is undertaken by the Lead Auditor and consists of an examination of the client's policy documents, manuals, key procedures and any other necessary documents to ensure that these meet the requirements of ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001. A Document Review checklist is available and may be used.

Following the document review, areas that do not meet the requirements of the standard should be brought to the attention of the client. Instances of good practice should also be pointed out. Non-conformances are not raised during this section of the certification process.

When the QM is satisfied that the documentation is adequate the Lead Auditor must then make arrangements for the Stage 1 on-site audit. The information gathered so far in the assessment process may be used in a confidential manner to prepare for the on-site visit.

An audit programme (FOR/ ODPL-11/11) must be established for the full three year certification cycle. The audit programme must identify the audit activities required to demonstrate that the client's management system fulfils the requirements of the standard they are certificated to. The programme will include a two stage initial audit, surveillance audits and a recertification audit in the third year prior to expiry of certificate. It is the responsibility of the QM and administrative staff to put the audit programme together and communicate to the client and auditors involved in the auditing process.

The audit programme developed will take into account issues raised at previous audits and are liable to change during the three year certification period.

6.6 Audit Arrangements

The Lead Auditor is responsible for making the arrangements for the audit with the client. Logistical requirements (travel and accommodation etc.) are organised either by the client or by the Lead Auditor. Details of the audit including names of the auditors, times, dates and an audit plan (FOR/ ODPL-11/22 & 23) must be provided to the client in sufficient time to enable suitable arrangements to be made.

The audit plan (FOR/ODPL-11/22 & 23) will be put together on the basis of the audit programme (FOR/ ODPL-11/11) and shall include:

Principal
Bharat Institute of Engg. and T
Mangalpally(V), Ibrahimpatnam(
Ranga Reddy (Dist)-Telangana-501510

- Scope, (including identification of the organisational and functional processes to be audited)
- Objectives
- Criteria
- The dates and sites where the audit activities are to be conducted
- The expected time and duration of the on-site audit activities
- The roles and responsibilities of the audit team members and accompanying persons

Auditors are recommended to consult the guidance which is available in the following documents in drawing up the audit plan and any personal checklists needed:

- QMS Audit
- EMS Audit
- Audit Schedule
- Frequency and duration of audits
- Previous Audit report and auditors notes

The audit objectives shall describe what is to be accomplished by the audit and will include:

a) Determination of the conformity of the clients management system with the audit criteria;
b) Evaluation of the ability of the management system to ensure the clients organisation meets applicable statutory, regulatory and contractual requirements;
c) Evaluation of the effectiveness of the management system to ensure the client organisation is continually meeting its specified objectives;
d) As applicable, identification of areas for potential improvement of the management system.

The audit scope shall describe the extent and boundaries of the audit, such as physical locations, organisational units, activities and processes to be audited.

The audit criteria shall be used as a reference against which conformity is determined and shall include:

a) The requirements of a defined normative document on management systems e.g. ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001
b) The defined processes and documentation of the management system developed by the client

Prior to the audit taking place a meeting between the Lead Auditor and members of the audit team must be held. All audit team members must be provided with the appropriate documentation and background information to be able to successfully complete the audit. It is the responsibility of the lead auditor to ensure that appropriate data referring to the regulatory requirements of the client is updated by appropriate sources prior to the audit taking place.

Audits of clients are completed using the same methodologies. Records are kept in Individual client files (ODPL/XXXX/001 series).

Bharat Institute of Engg and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

6.7 Combined ISO Audits

ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001 which allow combined audits to take place. This may be carried out either where a combined system exists or two or more separate systems are in operation.

The ISO part of the audit follows the process detailed in this procedure. The procedures for ISO auditing can be found in ODPL's Quality Management System

Combined audits require careful planning to ensure that the scope of the audit is adequately covered. It will be the responsibility of the Lead Auditor to ensure that the audit adequately covers all the requirements

Lead Auditors used on combined audits must possess the minimum qualifications as detailed in the Competency Analysis (FOR/ODPL-11/13 & 14). A combined audit may be undertaken by a team consisting of two Lead Auditors if no single Lead Auditor has all the necessary competencies. In such cases the Lead Auditors will ensure that regular meetings occur between the audit team to ensure that all necessary sections are being audited adequately.

Auditors must be competent to audit the tasks that are assigned to them.

6.8 Audit Opening Meeting

An opening meeting must be held at the start of the first day of the audit. The Lead Auditor should chair the meeting and note those attending the meeting (FOR/ODPL-11/09 & 10). The meeting should include suitable representatives of the client. During the opening meeting the following should be discussed:

- Introduction of participants, including outline of roles
- Confirmation of scope of audit
- Confirmation of audit plan (including type and scope of audit, objectives and criteria);
- Confirmation of formal communication channels between the audit team and client
- Confirmation that resources and facilities needed by the audit team are available
- Confirmation of matters relating to confidentiality
- Confirmation of relevant work safety, emergency and security procedures for the audit team
- Confirmation of the availability, roles, identities of any guides and observers
- The method of reporting, including any grading and audit findings
- Information about the conditions under which the audit may be prematurely terminated
- Confirmation that the audit team leader and audit team representing the certification body is responsible for the audit
- Confirmation of the status of findings from previous review, if applicable
- Methods and procedures to be used to conduct the audit based on sampling

Bharat Institute of Engg. &
Mangalpally(V), Ibrahimpatnam,
Ranga Reddy (Dist)-Telangana-501510

- Confirmation that the client will be kept informed during the audit of any concerns/progress
- Opportunity for the client to ask questions

6.9 Observers and Guides

An observer may attend during the audit activity but agreement should be sought from the client and the auditor prior to the start of the audit. The audit team will ensure the observer does not in any way influence or interfere in the audit process. The auditor should be accompanied by a guide (unless otherwise agreed to) A guide should be assigned to the audit team to facilitate the audit. The audit team should ensure the guide does not influence or interfere in the audit process.

6.10 Conduct of Audits

The Lead Auditor is responsible for carrying out audits and should be available to the audit team should queries arise. The purpose of the audit is to obtain evidence of conformity (or non-conformity) regardless of familiarity with processes or persons involved.

The Lead Auditor must ensure that tasks are appropriately assigned to suitably qualified and competent team members, i.e. where an activity requires a particular specific competence, the auditor with that competency must be assigned to complete that part of the assessment.

During the audit each Auditor records details of the personnel who were the focus of each activity/process assessed and the specific details relating of the document/records examined. This information can be in the form of checklists and/or a copy of the notes made, or annotations to photocopies/records under audit. In the event that evidence obtained later in the audit clarifies or alters early evidence a suitable cross-reference is to be made in the auditor's notes used. These notes would need to be used for preparation of the audit report and would be retained until the audit report is produced.

During the audit the audit team shall periodically review audit progress and exchange information. The team leader shall reassign work if needed between audit team members and continue to communicate progress or any concerns to the client.

Audits are a two way process and their success depends on obtaining the full facts. They are confidential between ODPL and the client within the precepts of the Freedom of Information Act. The Quality Manual outlines the commitment to confidentiality and details what is expected of ODPL personnel.

Bharat Institute of Engg. and Tech
Principal
Mangalpally (V), Ibrahimpatnam(M)
Ranga Reddy (Dist), Telangana-501510

The audits will take into account the guidance given in ISO 19011:2011, ISO 17021:2011 and the ODPL Manual. The audit programme shall include stage 1 and 2 two stage initial audits (see 6.11 and 6.12), surveillance audits in the first and second years and a recertification audit in the third year prior to the expiry of certification. The certificate commences from the certification or re-

certification decision. The audit programme shall give due consideration to the size of the organisation, scope and complexity of its management system, products and processes, effectiveness of the management system and the results of previous audits, if any. However sufficient verifiable information needs to be collected to justify the audit programme and any adjustments made to the audit programme shall be recorded.

6.11 Stage 1 Audit

The Stage 1 Assessment of a client's management system is undertaken at the premises of the client and is completed to gain an understanding of the management system and its implementation by the client. This enables any possible issues to be raised before the Stage 2 audit is undertaken.

The audit team should draft an audit plan to cover the objectives of the Stage 1 Audit which are:

- To audit the client's management system documentation;
- To evaluate the client's location and site-specific (includes remote offices and sites) conditions;
- To establish the readiness of the client for stage 2 audit;
- To review the client's status and understanding regarding requirements of the standard, in particular with respect to the identification of key performance or significant aspects, processes, objectives and operation of the management system;
- To collect necessary information regarding the scope of the management system, processes and locations of the client, and related statutory and regulatory aspects and compliance (e.g. quality, environmental. Legal aspects of client's operation, associated risks etc);
- review the allocation of resources for the stage 2 audit and agree with the client on the details of the stage 2 audit;
- To provide a focus for planning the Stage 2 audit by gaining a sufficient understanding of the client's management system and site operations in the context of possible significant aspects;
- To evaluate if the internal audits and management review are being planned and performed, and that the level of implementation of the management system substantiates the client is ready for the stage 2 audit
- To allow the Lead Auditor to ascertain whether any further planning, resources or technical advice will be required to thoroughly assess the management system; and
- To provide feedback to the client prior to moving on to stage 2 audit, including any areas of concern that could be classed as a nonconformity during stage 2, and the interval before commencing stage 2.

A closing meeting (see 6.15) should be held at the conclusion of the audit and the findings reported (see 6.16).

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

If the management system documentation fails to meet the standard or its implementation is ineffective, non-conformity reports will be raised (see 6.14). Any issues, discrepancies or non-

conformities raised following the stage 1 Audit must be closed out (see 6.17) prior to moving to the stage 2 Audit.

It is the Lead Auditor's responsibility to remain in contact with the client to ensure that the assessment moves onto stage 2. All non-conformities must be closed out before the client moves onto the stage 2 audit process.

6.12 Stage 2 Audit

The Stage 2 Audit consists of both a further audit of the client's head office and audits of a sample of other offices included within the scope of certification. A final close-out audit may be held at the client's head office.

The audit team should draft an audit plan to cover the objectives of the Stage 2 Audit which are to test:

- Information and evidence about conformity to all requirements of the management system
- Performance monitoring, measuring, reporting and reviewing against key performance objectives and targets
- The client's management system and performance as regards legal compliance;
- Operational control of client's processes;
- Internal auditing and management review;
- Management responsibility for client's policies; and
- Links between the standard's requirements, policy, performance objectives and targets, any applicable legal requirements, responsibilities, competence of personnel, operations, procedures, performance data and internal audit findings and conclusions.

Auditors are recommended to consult the guidance which is available in the following documents in drawing up the audit plan and any personal checklists needed:

- QMS Audit
- EMS Audit

6.13 Short Notice Audits

It may be necessary to conduct short-notice audits:

- To investigate complaints, if there is insufficient response from the client to information requests, or the situation is so serious that only an audit will allow the provision of the necessary evidence of compliance
- As follow up to suspended clients
- If a client persistently or seriously fails to meet certification requirements; or

Bharat Institute of Engg.
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

- If a client does not allow surveillance, or recertification, audits at the required frequency.

It is acknowledged that these audits will place a strain on our relationship with the particular client, but we have to assure ourselves that certification conditions remain sound. The QM is to exercise care when deciding the scope of the audit and in the selection of the audit team, as the client will have little time to object to audit team members. ODPL shall give advance notification to the client of such an audit, the details of the audit and the circumstances which lead to the same.

6.14 Non-conformities

ODPL operates a three tier system of non-conformity.

- Observation – No corrective action is required by the client
- Minor Non-conformance – Corrective action required by the client, usually within three months.
- Major Non-conformance – Corrective action required by the client, in most circumstances immediate action is required.

If during the course of the audit deficiencies within the system are found by an auditor, the findings should initially be discussed with the auditee to establish whether non-conformity does exist. The auditee should be made aware that there is an intention to raise a non-conformity note against the area being audited, which will be presented to the management of the organisation during the audit closing meeting.

If objective (audit) evidence is found, it must be recorded as a nonconformity, rather than using an "observation" categorisation. If, however there is a lack of objective evidence by definition a non conformity cannot exist. It should be remembered that when viewing the wider picture nobody benefits from use of lower categories as the priority assigned to corrective action will be inappropriate.

Non-conformity Note (NCN) Form must be used when raising non-conformities. The form must be filled out by the auditor, ensuring that the standards/code under which the non-conformity has been raised have been included.

All NCN's are allocated a unique number. The unique number should follow the form:

Co./Standard/Year/NCN No Example: XYZ/9K/2015/01

This number provides the unique reference.

The description of the deficiency on the NCN form should include:

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

- **Identification of the problem:**

  "A Review of records of deck stores received revealed that no reports of compliance had been made for one year despite the 'Client XYZ' receiving stores every three months and there has been no follow up from the company."

- **Identification of the requirement**

  "To verify compliance with specification and submit a report to the company."

- **Attribution**

  "Clause 7.4.3 of the ISO 9001:2008 requires the company to establish and implement the inspection or other activities necessary for ensuring that purchased product meets specified purchase requirements." Although insertion of the clause reference in the required box will suffice.

In this example the root cause of the deficiency has been identified rather than the shallower "control of records".
Deficiencies from similar clauses of the relevant standard should be grouped together under a single NCN.

All NCNs raised must be presented to the client at the closing meeting (see 6.15). This allows the client to discuss the findings with the audit team. If the client is in agreement with the findings of the audit a signature from a representative of the company is required on the NCNs.

Major non-conformities should be marked for immediate action or a short term, maximum of two weeks. Corrective action should be agreed before leaving the premises.

Minor non-conformities may have a time scale of up to three months. If a client requests time to consider the appropriate corrective action the Lead Auditor has the discretion to grant the client one week to consider their options.

Observations do not require any corrective action. Observations may be raised to highlight information to both the client and to ODPL personnel that may audit the client in the future.

Upon satisfactory completion of the NCN, including details of proposed corrective actions, the auditor signs and dates the NCN. The yellow copy is retained for ODPL files. The client retains the white copy.

Closing out non-conformities is covered in paragraph 6.15

Principal
Bharat Institute of Engg. &
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

6.15 Closing meeting

At the end of the audit a closing meeting must be held, chaired by the Lead Auditor. Prior to the meeting with the client a private meeting must be held so the audit findings can be discussed among the team and any non-conformities written up, this must include;

a) Review of audit findings and any other appropriate information collected during the audit, against audit objectives
b) Agree upon audit conclusions
c) Identify necessary follow up actions
d) Confirm the appropriateness of audit programme and identify rectification/corrective action if required

Records of those present at the closing meeting should be kept (FOR/ ODPL-11/09 & 10). The Lead Auditor should indicate that the meeting is an opportunity for the client to ask questions about the findings and their basis.

The findings, including non-conformities and areas of good practice should be discussed including the recommendation regarding certification. In particular, on completion of the audit, remedial action is discussed and NCN's signed by the Lead Auditor and relevant location management to agree appropriate action including timescale for completion.

At this point the Lead Auditor must provide the client with an indication of the conformity of the organisation's EMS and or QMS to the required standard. The client will be informed of the need for a full or partial reassessment or whether a written declaration, to be confirmed at a future surveillance visit will be considered adequate.

The closing meeting shall also include the following elements:

a) Advising the client that the audit evidence collected was based on a sample of the information; thereby introducing an element of uncertainty
b) The method and the timeframe of reporting, including grading of findings
c) The certification body's process for handling non-conformities including any consequences relating to the client's certification
d) The timeframe for the client to present a plan for correction and corrective action for any nonconformities identified during the audit
e) The certification body's post audit activities
f) Information about the complaint handling and appeal processes

The client must be given the opportunity to ask questions. Any conflicts of interest raised during the audit regarding findings between the client and audit team members shall be discussed and resolved where possible. Any issues that cannot be resolved must be recorded and referred to the ODPL.

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

6.16 Reporting Results

Following the assessment the Lead Auditor is responsible for writing a report on the findings of the audit team (FOR/ODPL-11/24 & 25). In writing reports to cover multiple standards (ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001) it is necessary to group together comments under similar clauses from each standard. To aid this, the audit report section headings will identify the clauses of the standards that are applicable. A table at Annex A shows a simplified comparison, by reference to each requirement. There may be some differences in the specific requirements but they have been considered equivalent for this comparison.

The Lead Auditor must endeavour to forward the report to the client within fifteen working days of completion of the audit. The Lead Auditor will need to liaise with team members and to ensure receipt of draft reports relating to activities and processes assessed. It is left to the Lead Auditor's discretion as to whether individual auditors should produce reports, which are then collated, or whether one report is produced by a combined effort of the audit team.

As a minimum the report must include:

- Identification of the certification body
- The name and address of the client and clients representative
- The type of audit (e.g.: initial, surveillance, recertification)
- The audit criteria
- The audit objectives
- The audit scope, identification of the organisational functions or processes audited
- Name of audit team leader, audit team members and other accompanying persons
- Time, date and place of the audit
- Audit findings, evidence and conclusions, consistent with the requirement of the type of audit
- Any unresolved issues, if identified
- Comments on conformity of the system to the requirements of the standard;
- Clear statements of non-conformity when non-conformity was found;
- If appropriate, comparisons with previous assessments of the client; and
- A recommendation, if relevant regarding certification.

The report may also include:

- Areas of good practice;
- Areas of bad practice; and
- List of personnel audited.

The original report is then sent to the client, and a photocopy kept on the appropriate client file. The client's local management are invited to respond to this report highlighting any areas of ambiguity.

Bharat Institute of Engg. and Tech.
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

Following the dispatch of the audit report the client file is to be forwarded to the Administrator for process control (see 6.27) and to the QM for review and decision making on issuance of or maintaining of certification. The QM will inform the client in writing of the certification decision. Upon completion of the audit, the Administrator will send the Client a copy of FOR/ODPL-11/26 (entitled ODPL Customer Satisfaction Survey Form) for completion and return. If a response is not received within one month, the Administrator will write to the company requesting that it be completed and returned as part of ODPL's commitment to continual improvement. Any "poor" rated markings will be examined in line with paragraphs 4.7, 9.8 and 10.3.5.2 (b) of ISO 17021:2011 and action accordingly. All correspondence relating to this will be documented and placed upon ODPL/CSS/XXX (ODPL Customer Satisfaction Survey) file.

6.17 Follow-up action

The Lead Auditor is responsible for ensuring that any NCN's raised during the assessment are closed out by the agreed dates. There should be three considerations when considering the close-out response to a NCN: correction of the deficiency identified; an analysis of the cause of the deficiency; and corrective action. When deciding to close-off nonconformity the auditor needs to consider if objective evidence has been provided to demonstrate closure of all three considerations.

If it becomes clear that action cannot be completed within the timescale, the client should contact the lead auditor explaining the situation. If appropriate the Lead Auditor may then either:

1. Close the existing non-conformity and raise a new non-conformity which is the same as the first but with an amended deadline; or
2. If the non-conformity is minor, upgrade it to a major. If the nonconformity is a major it may be necessary to suspend the certification process or any issued certificate following consultation with the QM.

When the close-out action is complete, the NCN with supporting evidence is returned to the Lead Auditor to demonstrate that required action has been taken. In the majority of cases, documentary evidence such as copies of revised records, instructions issued or minutes/letters written will be accepted as proof and allow the Lead Auditor to effect close-out.

If the auditor is satisfied with the documentary evidence supplied the nonconformity may be closed out. If the auditor is not satisfied the client must be informed with an explanation of the requirements.

If documentary evidence does not provide enough evidence as to the effectiveness of the corrective action, the auditor may request that an additional visit to the client be made. This may be an additional full audit, and additional limited audit or a further request for documented evidence (to be confirmed during future surveillance audit). This may take place immediately or after an arranged time period to allow any new practices to be put in place. Such audits will be limited to assessing the effectiveness of corrective action.

Bharat Institute of Engg. and Tech.
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

If the Lead Auditor regards the client to be lacking in commitment when undertaking any follow up action the QM must be informed so (s) he/she can decide what action is to be taken.

6.18 Declaration

This must not be completed until all NCNs raised during the assessment have been closed out as certification cannot be awarded if nonconformities remain open except in the case of transfer of certification from another certifying body and the Lead auditor is content to give the client the normal 3 month period allowed for closure of minor nonconformities.

Following the successful completion of stage 1 and stage 2 audits and the close out of all NCNs, the Lead Auditor must complete the Declaration Form (FOR/ODPL-11/27 & 28) to indicate to the QM the level of compliance of the client's management system to ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001.

Section 4 is to record analysis of assessment information gathered during stage 1 and stage 2 audits on each clause of the standard. The comment section at the end of section 4 must be completed to include: comments on NCNs and where applicable their close-out; and provide either a 'positive' or 'negative' recommendation. The form must be signed by all members of the audit team to indicate agreement of the recommendation statement.

6.19 Certification Decision

The declaration is passed onto the QM, along with the associated client file(s), containing all relevant assessment information gathered during the assessment: application review; stage 1 audit(s) and stage 2 audits. It is the responsibility of the QM to make the final unbiased and independent decision as to whether a client receives certification, recertification, or not.

The decision will be based on:

- Confirmation that audit report is sufficient with respect to certification requirements and scope;
- Correction and corrective actions have been accepted, reviewed and their effectiveness verified in cases of failure to fulfil requirements of the management systems standard or doubt is raised about ability to achieve intended outputs;
- Other correction and corrective actions have been reviewed and accepted; and
- Any other relevant information (public information, comments from client on audit report(s)).

The QM completes Section 6 of the Declaration Form (FOR/ODPL-11/27 & 28) stating whether or not certification has been granted. If the QM disagrees with the recommendation of the Lead Auditor, the QM must state in the comments section the reasons for the decision.

Bharat Institute of Engineering and Technology
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

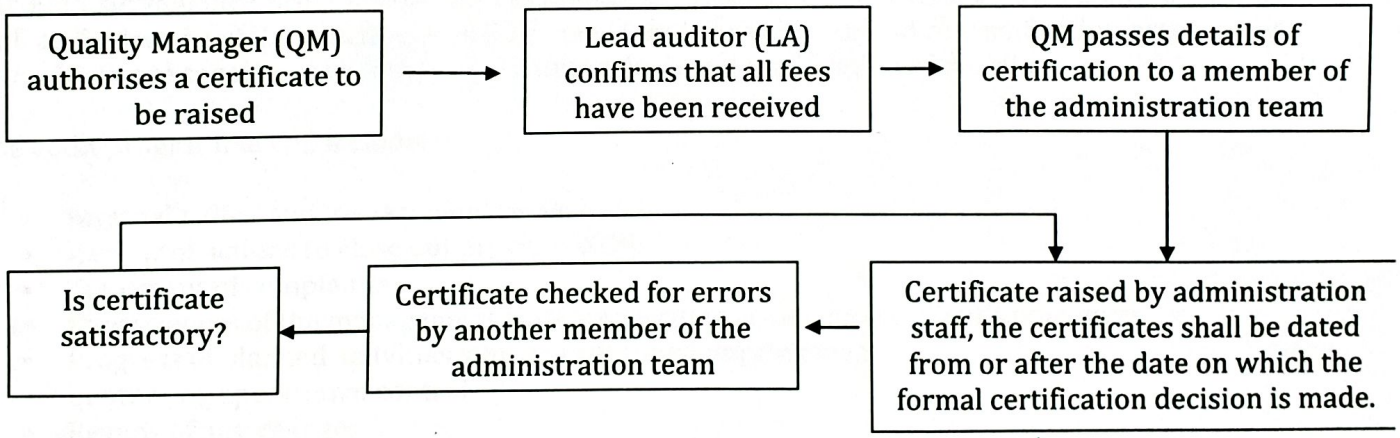
However, if the QM has been part of the audit team, he would delegate the decision making to another appropriate person who understands the applicable standard and demonstrates competence to evaluate the audit processes and recommendation of the audit team and who has not been involved in the audit activity.

6.21 Certification Period

The certification period which ODPL operates is 3 years. The certification period cycle begins with the certification or re-certification decision.

6.22 Production of Certificates

After the certification decision has been made the declaration form and file are returned via the Lead Auditor to the Administrator for production of the certification document, in accordance with the following steps;



Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

6.23 & 6.24 Surveillance Assessments & Surveillance Audits

Surveillance assessments are carried out according to the audit schedule. Changes to this schedule may occur if deemed necessary significant changes to the operations of the client take place or it is

felt that the client is failing to meet the requirements of the standard. Surveillance audits are carried out as detailed in paragraphs 6.4 – 6.15.

It is the responsibility of the assigned Lead Auditor to contact the client to make the arrangements for the audit: Unless fundamental changes to the management system or organisation have been undertaken there is no need to undertake an Application or Document Review, although a copy of appropriate documentation should be requested prior to the audit being conducted.

EMS surveillance programmes will consider the environmental risks associated with a client's operations as well as environmental performance. Surveillance and re-certification assessment procedures shall be consistent with those concerning the initial certification of the client.

Other surveillance activities may include:

- Inquiries to the client on aspects of certification
- Reviewing client's statements with regards to its operations
- Requests to clients to provide documents and records
- Other means of monitoring the client's performance

Surveillance audits are to be conducted 'on-site'. The audits of the head office shall be conducted at least once a year. The date of the first surveillance audit following initial certification shall not be more than 12 months from the last day of the stage 2 audit. Those with remote sites will be programmed over the certification cycle.

For EMS surveillance programmes the environmental risks associated with a client's operations as well as environmental performance will be considered. Surveillance and re-certification assessment procedures are consistent with those concerning the initial certification of the client.

The audit programme will include:

- Internal audits and management review
- Review of actions to close out previous NCNs
- Treatment of complaints
- Effectiveness of the management system regarding achieving the client's objectives
- Progress of planned activities aimed at continual improvement
- Continuing operational control
- Review of any changes
- Use of marks and logos together with other references to certification.

6.25 Maintaining Certification

ODPL shall maintain certification based on the demonstration that the client continues to satisfy the requirements of the management system standard. Client's certification to be maintained on a positive conclusion by the Lead Auditor without any further independent review provided:

Principal
Bharat Institute of Engg. and Tech
Mangalpally (V), Ibrahimpatnam(M)
Ranga Reddy (Dist), Telangana-501510

1. In the case of any Non-conformity or similar situation occurring which may lead to suspension or withdrawal of certification then the Lead Auditor shall report to the QM the need to initiate a review. Such a review would need to be conducted by personnel who have not conducted the audit. This review would determine whether the certification can be maintained and

2. Competent personnel of ODPL monitor its surveillance activities, including monitoring the reporting by its auditors, to confirm that the certification activity are operating effectively.

6.26 Re-certification Assessments

A recertification audit shall be planned and conducted for all clients to evaluate continued fulfilment of all the requirements of the management system standards. The purpose of the recertification audit is to confirm continued conformity and effectiveness of the management system as a whole and its continued relevance and applicability for the scope of certification.

Re-certification assessments are completed as scheduled in the certification cycle plan. They may require a stage 1 audit in addition to a stage 2 audit in circumstances where there have been significant changes to the management system or the operating context. Assessments are completed as the initial assessment as detailed in paragraphs 6.4 to 6.15. ODPL clients with multiple certifications (9001 & 14001) and / or multiple sites should have audit plans to cover on-site audit coverage to provide confidence in the certification over the certification period (FOR/ODPL-11/22 & 23)

During recertification audits the time limit for corrective action to be implemented shall normally be before the expiry of current certification. The recertification audit should consider the performance of the management system over the period of certification and should include review of previous surveillance audit reports.

The recertification audit must include an on-site audit which should address

1. The effectiveness of the management system in the light of internal and external changes for continued relevance and applicability to the scope.

2. Demonstrate commitment to maintain effectiveness and continual improvement of the management system to enhance performance.

3. Whether the operation of the certified management system contributes to the achievement of the organisation's policy and objectives.

A declaration is completed by the Lead Auditor (see paragraph 6.18) for a certification decision by the QM (see paragraph 6.19) which will also include consideration of a performance review over the

Principal
Bharat Institute of Engg. and T
Mangalpally(V), Ibrahimpatnam,
Ranga Reddy (Dist), Telangana-501510

certification cycle and any complaints received. After a positive decision the new certificate will be issued (see paragraph 6.22). The QM shall review the results of the recertification audit over the period of certification and the complaints received from users of certification prior to confirming renewal of certification.

Re-certification may be awarded prior to the close out of minor nonconformities in exceptional circumstances, provided corrective action and deadlines for closure have been agreed by the Lead Auditor.

6.27 Process Control

The auditor will update their standard auditor audit log (FOR/ODPL-11/29) and send these to the administrator on a regular basis, starting at the beginning of the calendar year.

Following the audit and completion of the documentation required the auditor shall number each document required for ease of reference, the Administrator is then responsible for undertaking checks to ensure all the appropriate information is held within the client file (see client files).

After completion of the process review the file is to be passed to the QM for review (see 6.14).

6.28 Transfer of Certification

Transfer is defined as the recognition of an existing and valid EMS or QMS certificate granted by another certification body accredited by an accreditation body, which is IAF-MLA recognised, for the purpose of issuing its own certification.

IAF MLA accredited certificates may be considered for transfer and the process detailed in paragraph 6.1 will be followed.

In cases of non-IAF MLA accredited certificates the transfer will be dealt with as a new application for certification. Certificates that have been suspended or are under threat of suspension should not be accepted for transfer.

6.29 Transfer Review

A review of the system will be undertaken by a lead auditor appointed by the QM. The transfer review will normally take the form of an application review (paragraph 6.3) including a document review (paragraph 6.5). The remaining steps of the certification assessment (paragraphs 6.5 to 6.15) will be determined on a case by case basis, based upon the size of the client, number of remote sites, scope of certification and other relevant information including information regarding the current status of the ISO certificates held.

Bharat Institute of Engg. & Tech.
Mangalpally (V), Ibrahimpatnam (M)
Ranga Reddy (Dist.), Telangana-501510

The transfer review should cover the following points in addition to those covered in paragraph 6.3:

- Reasons for seeking transfer;
- Ensure that a valid certificate, in terms of authenticity, duration and scope is held for the sites or sites that wish to transfer;
- Consideration of the last assessment reports and non-conformities;
- Complaints received and action taken; and
- The stage in the current certification cycle.

Before certification is granted the issuing certification body must close out all outstanding non-conformities. If this is not possible, it is acceptable for ODPL to close out the non-conformities.

Following the review of the system a Declaration (see 6.18) is to be completed before a certification decision (see 6.19) is made.

All assessment reports and non-conformities will be taken into consideration from the previous certification cycle.

6.30 Suspending, withdrawing or Reducing Certification

In the event that a situation arises that could suspend, reduce or withdraw certification the QM should be notified in writing together with supporting documentation. The QM will request Administrative staff to keep records of the situation and the Director, Technical Performance informed.

If notification of the situation came from an external source the QM will appoint an EMS or QMS Auditor, as appropriate, to investigate and review investigator, and invited to reply. A review will be conducted and a recommendation made.

Once a recommendation has been made the QM will consider the documentation and make a decision. If the decision is that the scope will be reduced then a new certificate will need to be issued.

If the QM decides Certification should be withdrawn or suspended the Client will be informed in writing stating the decision and reasons behind making it. The contractual requirements of returning certification and conditions for displaying marks and logs will be pointed out as well as right of appeal (SOP:ODPL:07).

The ODPL administrator will amend the current information and certification status

Completed documentation will be reviewed by the ODPL Management Team and the Impartiality Committee.

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

ODPL will not delegate the authority for granting, maintaining, extending, reducing, suspending or withdrawing certification to an outside person or body. All certification decisions are made by the QM or someone specifically delegated.

6.31 Suspension of Certificates

A certificate may be suspended (usually for a maximum of six months) due to:

1. The client's management system persistently or seriously failing to meet certification requirements, including requirements for effectiveness of the management system such as;
   - Unauthorised change of scope, activity, or ownership of the company,
   - Failure to pay fees,
   - Failure to comply with the certification process,
   - Misuse of logos and marks or a breach of contract;

2. Client not allowing surveillance or recertification audits at the required frequency

3. At the request of the client.

The partial or complete suspension of a certificate is the responsibility of the QM on the basis of a recommendation made by a Lead Auditor. Under suspension the management system certification is temporarily invalid and the client is to refrain from further promotion of its certification.

The client may appeal against the suspension of certification through the appeals process (Procedure SOP:ODPL: 07).

Failure to resolve the suspension issues in the established timescale will result in withdrawal or reduction in scope of the certification.

6.32 Reducing Scope of Certification

Certification may be reduced in line with the management system standard if:

1. If ODPL determines that the client is unable to fulfil any part of the scope that the client holds, e.g. through failure to close nonconformities, significant changes to the activities and operation of the organisation or failure to comply with the requirements of the standard; or
2. At the request of the client.

ODPL will inform the client, in writing, of any decision regarding a reduction in certification, outlining the justifications for the action being taken

The client may appeal against the reduction in scope through the appeals process (Procedure SOP: ODPL: 07).

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatnam(M)
Ranga Reddy (Dist)-Telangana-501510

6.33 Extending Scope of Certification

If a client wishes to extend certification ODPL must be informed in writing. The Quality Manager will then make a decision based either on existing information regarding the client or following an additional assessment of the client, carried out to establish the ability of the client to comply with the requirements of the scope.

The additional assessment will take the form of a surveillance assessment and will focus on sections of the client's organisation that will be affected by the change in scope.

A completed declaration of audit (FOR/ODPL-11/27 & 28) will provide the Quality Manager with the recommendations of the lead auditor appointed for the purpose of reviewing the system.

6.34 Withdrawal of Certificates

A certificate may be withdrawn due to continuing failure to comply with the certification process, or a breach of contract.

Decisions to withdraw a certificate, either partially or in total, will be made by the QM on the basis of a recommendation made by a Lead Auditor. The client may appeal against the withdrawal of certification through the appeals process (Procedure SOP: ODPL:07).

If, following withdrawal of a certificate and subsequent removal from the certified Clients lists, the client continues to use the marks in literature, ODPL may take appropriate legal action.

Following a reduction or extension in certification or a change in the clients' activity or operation the audit schedule for the client will be reviewed, and if appropriate, revised (see FOR/ODPL-11/22 & 23).

6.35 Re-instatement of Certificates

Re-instatement, following withdrawal or reduction of the certification, will require reassessment of the company's systems. A review will be necessary to determine/verify the scope of assessment required.
Re-instatement, following suspension of certification, will be made by the QM on the basis of a recommendation prepared by a Lead Auditor once corrective action has been taken by the client and verified by ODPL; or following a successful appeal process.

6.36 Use of Logos and Marks

Once certification has been confirmed and issued the certified organisation may display marks to reflect the level of certification achieved. The certification marks terms and conditions form part of

Principal
Bharat Institute of Engg. and Tech
Mangalpally (V), Ibrahimpatnam(M)
Ranga Reddy (Dist), Telangana-501510

the contractual agreement (Client Proposal FOR/ODPL-11/30). These terms and conditions are available upon request.

6.37 Appeals and Disputes

In the event of audit findings or a certification decision not being accepted by the client, reasons for rejection must be provided and the Non Conformity Notes returned to the Lead Auditor. If satisfied by the evidence supplied, the Lead Auditor will close out the Non Conformity Notes and sign accordingly. However, where the Lead Auditor is not satisfied with the response, the QM will be informed and with a view to resolving outstanding issue. In cases where agreement cannot be reached, the Lead Auditor will make a report to the QM to initiate the appeals or disputes procedure (SOP: ODPL:07).

7.0 Documentation

7.1 Client File storage locations

ODPL /CE/001 – Client Enquiries Register (before receipt of application form)
ODPL/XXXX/001..... – Office files & Client Files (one per office per certification period)

7.2 Assessment Documentation

The following document is required in the appropriate client file.

Application Form
EMS Questionnaire
Application Review Report
Contractual Certification Agreement
Audit Declaration
Client Audit Plan – Stage 1& Stage 2
ODPL Resource Requirements
Auditor Authorisations
NCN Form, if applicable
Opening/Closing meeting Form
Audit Report Form – Stage 1 & Stage 2
Intimation Letter – Stage 1 & Stage 2
Certificate of compliance
ISO Audit File Enclosure
Notes to Auditors, if applicable
Correspondence relevant to certification

The following documentation is optional for use during assessments.

Principal
Bharat Institute of Engg. and Te
Mangalpally(V), Ibrahimpatnam
Ranga Reddy (Dist)-Telangana-501510

ISO 9001, ISO 14001, OHSAS 18001, ISO 22000 & ISO 27001 Audit
Application Review
Document Review Checklist
Certification Review Checklist

The form is not designed to cover all areas but to sample an area of each section. The auditor may choose to cover all areas but to be used at own discretion

Principal
Bharat Institute of Engg. and Tech
Mangalpally(V), Ibrahimpatn.
Ranga Reddy (Dist)-Telangana-501510