

ASH HANDLING SYSTEMS

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
2.	New Power House No.4 2x30 MW Units, Jamshedpur	Tata Iron & Steel Company	30 TPH	1973	Storage type bottom ash hopper. Ash is pumped through jet pump into Hydrobins. Fly ash is evacuated in dry form and stored in silo using only vacuum system.
3.	Chandrapura Thermal Power Station Units # 4 & 5 – 2x120 MW	Damodar Valley Corporation	60 TPH	1974	Storage type bottom ash hopper. Dry fly ash is evacuated by Vacuum system. Bottom ash and fly ash slurries are pumped together using CD-135 ash slurry pumps.
4.	Guru Nanak Dev Thermal Plant – Units # 1 & 2 - 2x110 MW	Punjab State Electricity Board	60/80 TPH	1974	Storage type bottom ash hopper. B.A. slurry is jetted into common slurry sump using hydroejector. Fly ash is evacuated in dry form and disposed off in wet slurry form using D-135 ash slurry pumps. Alternatively dry fly ash can be collected in a silo by using vacuum-cum-pressure transfer system

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5.	Ukai Thermal Power Station Units # 1 & 2 - 2x120 MW	Gujarat Electricity Board	60/70 TPH	1975	Fly ash is evacuated in dry form and mixed with water in an elevated tank. Ash slurry is disposed to disposal area directly by gravity. Bottom ash is collected in a storage type hopper and disposed directly to ash dump area using Hydrojector.

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6.	Patratu Thermal Power Station – Units # 7& 8 – 2x110 MW	Bihar State Electricity Board	60 TPH	1976	Both fly ash and bottom ash are Continuously collected in wet form and ash slurry is conveyed to disposal area by using D-135 hydroseal ash slurry pumps.
7.	Gandhinagar TP Station Units # 1 & 2 – 2x120 MW	Gujarat Electricity Board	60 TPH	1977	System is similar to Ukai Units # 1& 2 at S. No. 5

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8.	Nangal Expansion Project 3x81 TPH Steam generators	Fertilizer Corporation of India Ltd.	35 TPH	1976	Storage type bottom ash hopper. BA slurry is jetted into a common slurry sump using hydroejector. Fly ash is evacuated by vacuum system in dry form mixed with water in a tank and disposed off in wet slurry form by CD-135 ash slurry pump. This project has been secured against Global competition.
9.	Obra Thermal Power Station, Units# 9,10 & 11 - 3x200 MW (Stage-II)	U P State Electricity Board	120/120 TPH	1978/80	The system is similar to the system described under S.No.4 Guru Nanak Dev Thermal Plant Units # 1&2. For each unit 120-150 tonnes of ash is handled per hour. This is the largest system in India and ranks among the largest in the world.
10.	Obra Thermal Power Station Units # 12 & 13 -- 2x200 MW (Stage-III)	-do-	120/120 TPH	1981/82	
11.	Ukai Thermal Power Station, Units # 3 & 4 –2x200 MW	Gujarat Electricity Board	60/80 TPH	1979	Similar to S.No.5
12.	Haldia Fertilizer Project Units # 1, 2 & 3 – 3x30 MW	Fertilizer Corporation of India	15/20 TPH	1979	Ash is directly mixed with water under the hopper and disposed in slurry form through a trench

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13.	3x75 TPH Steam Generator Units at Nagda Project	GRASIM Limited	10/15 TPH	1977	Storage type bottom ash hoppers. Bottom ash is pumped into a hydrobin. Fly ash is evacuated in dry form using steam ejector and stored in silo using vacuum system.
14.	Kothagudem Thermal Power Station Units # 7& 8 – 2x110 MW	Andhra Pradesh State Electricity Board	60/80 TPH	1977	The system is similar to the system described under S. No. 4 GNDTP Units # 1&2 without the provision for dry fly ash collection in silo.
15.	Sindri Modernization Project - 3x180 TPH Steam Generator Units	Fertilizer Corporation of India	40 TPH	1977	The system is similar to Nangal Expansion Project under S.No.8.
16.	Sabarmati Thermal Power Station Unit 'D' – 1x110 MW	Ahmedabad Electricity Company Limited	60/90 TPH	1979	The system is similar to Nangal Expansion Project except D-135 ash slurry pumps are installed. Additional facility of dry fly ash collection in silo through vacuum system is also provided.
17.	Koradi Thermal Power Station Unit # 5 – 1x200 MW	Maharashtra State Electricity Board	60 TPH (BA)	1979	Bottom ash is collected in a storage type hopper and disposed off by hydro-ejector to an elevated slurry trough.

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18.	Chandrapura Thermal Power Station Unit # 6 - 1x120 MW	Damodar Valley Corporation	60/80 TPH	1979	The system is similar to Chandrapura Units # 4 & 5 under S. No. 3.
19.	Phulpur Fertilizer Project, 3x180 TPH Steam Generator	IFFCO	50 TPH	1979/80/81	The system is similar to Ukai Units # 1 & 2 under S. No.5.
20.	Nasik Thermal Power Station Units 3x200 MW	Maharashtra State Electricity Board	2x50 TPH each Unit	1979	Bottom ash system is similar to GNDTP under S.No.4. Dry fly ash handling system by utilisation of air slides, water mixed in the hydroejector and slurry conveyed up to common ash slurry sump. Ash slurry is pumped by D-135 ash slurry pump.
21.	Kerala Newsprint Project 3x60 TPH Steam Generator Units	Hindustan Paper Corporation Ltd.	30 TPH	1982	The system is similar to TISCO Units under S.No.2 except the Hydrovactor is mounted on recirculation water sump/settling Tank.
22.	Parli Thermal Power Station Unit # 3 - 210 MW	Bharat Heavy Electricals Ltd.	2x50 TPH	1980	The system is similar to Nasik Units under S.No. 20.
23.	Talcher Thermal Power Station Units # 5 & 6 – 2x110 MW	Orissa State Electricity Board	60/80 TPH	1982	The system is similar to Kothagudem Units under Sl.No. 14 and also includes wet disposal of coal mill rejects.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
24.	Vijayawada Thermal Power Station Units # 1&2 - 2x210 MW	Andhra Pradesh State Electricity Board	130 TPH	1979/80	The bottom ash system is similar to Kothagudem Units under S.No.14. The fly ash system is similar to Patratu Units under S.No. 6 with an additional facility of dry fly ash evacuation and storage in silo using vacuum system. Frame D-135 ash slurry pumps are installed.
25.	Bandel Thermal Power Station Unit # 1 - 210 MW	West Bengal State Electricity Board	60/80 TPH	1983	The system is similar to Ukai TPS Units under S.No.5.
26.	Bhusawal Thermal Power Station Units 1x210 MW & 1x62.5 MW	Maharashtra State Electricity Board	2x50 TPH	1980	The system is similar to Nasik Units under S.No.20 except CD-135 ash slurry pumps are installed.
27.	Indraprastha Thermal Power Station Unit # 1 - 37.5 MW	Delhi Electric Supply Undertaking	40 TPH	1982	Dry fly ash vacuum system. Ash disposal booster pumps common for all five (5) units.
28.	Yallourn, C,D & E Power Stations, 4x50 MW & 2x120 MW Units	State Electricity Commission of Victoria, Australia	20 TPH	1981	Modification – Ash Disposal System (continuous removal) through ash disposal pumps.
29.	Bokaro Steel Plant – Captive Power Plant Units # 6,7 & 8 - 3x60 MW	Steel Authority of India Ltd. – BSP	-	1985	Three (3) storage type bottom ash hoppers each with one (1) clinker grinder.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
30.	Durgapur Steel Plant - Captive Power Plant Units # 1&2 – 2x60 MW	Steel Authority of India Limited - DSP	-	1985/86/87	Similar to Patratu TP Station Units # 7& 8 under S.No. 6. CD-135 ash slurry pumps are installed.
31.	Kota Thermal Power Station Units # 1& 2 – 2x110 MW	Rajasthan State Electricity Board	60/80 TPH	1986/87	The system is similar to Talcher Units under S.No. 23
32.	Renusagar Thermal Power Station Expansion Stage-I - 2x60/ 67.5 MW & 1x275 TPH	Renusagar Power Company Limited	75/150 TPH	1981/82	The system is similar to Kothagudem Units under S. No. 14. Ash removal from all three units is simultaneous.
33.	Patratu Thermal Power Station Units # 9 &10 - 2x110 MW	Bihar State Electricity Board	60/80 TPH	1984	The system is similar to Talcher Units under S.No.23
34.	Sindri Extn. Project, Sindri Power House Unit # 8	FCI - Sindri (Through BHEL)	16 TPH	1982	One (1) storage type bottom ash hopper with one clinker grinder. Fly Ash System (Hydrovactor).
35.	Parichha Thermal Power Station Units # 1&2 - 2x110 MW	U P State Electricity Board	80/100 TPH	1984	The system is similar to Talcher Units under S.No.23. Frame D-85 ash slurry pumps are installed.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
36.	Wanakbori Thermal Power Station Units # 1,2&3 – 3x210 MW	Gujarat Electricity Board	60/150 TPH	1982	Storage type bottom ash hopper. Ash is jetted into common slurry sump using hydroejector. Fly ash is evacuated in dry form and disposed off in wet slurry form by using slurry pumps (CD-135).
37.	Singrauli Super Thermal Power Project Stage-I Phase-II, Units # 4 & 5 2x200 MW	National Thermal Power Corporation	2x75 TPH	1984	The system is similar to Patratu Units under S.No.6. For continuous removal of B.A. below boiler, scraper conveyors are provided.
38.	Expansion of Trombay Generating Station 500 MW Unit	Tata Electric Companies, Mombay	120/240 TPH	1984/85	Bottom ash is collected in a Storage type hopper and disposed directly using a hydro-ejector. Fly ash is evacuated in dry form and disposed off to disposal area directly by gravity. SEA WATER is used for Ash Handling System.
39.	Koradi Thermal Power Station Units # 6 & 7 - 2x210 MW	Maharashtra State Electricity Board	200 TPH (Bottom Ash)	1982	The system is similar to Koradi Unit # 5 under S.No. 17 except the slurry is conveyed upto ash disposal area through ash slurry pumps & disposal pipelines.

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40.	Chandrapur Thermal Power Station Units # 1&2 - 2x210 MW	Maharashtra State Electricity Board	100/140 TPH	1984	The bottom ash system is similar to Koradi Unit # 5, under S. No. 17, fly ash is handled through feeder Ejector discharging ash slurry into sluice way and conveyed further upto a slurry tank. Ash slurry is pumped through ash slurry pumps frame D-85D (Double casing).
41.	Muzaffarpur Thermal Power Station, Units#1&2 – 2x110 MW	BHEL/BSEB	70/80 TPH	1985/86	The system is similar to Talcher units under S.No.23. D-85 Ash slurry pumps are installed.
42.	Raichur Thermal Power Station - 2x210 MW	Karnataka Power Corporation Limited	90/150 TPH	1985/86	The system is similar to Wanakbori units under S.No.36.
43.	Muzaffarpur Thermal Power Station 2x110 MW Units (Coal Mill Rejects Handling System)	BHEL/BSEB	16 TPH	1985/86	The system is similar to Kota Stage-I under S.No.31. (Mill Rejects Handling System only)
44.	Durgapur Thermal Power Station Unit # 6 – 110 MW	Durgapur Projects Limited	60 TPH	1985	The system is similar to Ukai Units # 1&2 under S.No.5.
45.	Ukai Thermal Power Station Unit # 5 – 210 MW	Gujarat Electricity Board	60/90 TPH	1985	The system is similar to Ukai Units # 3&4 under S. No. 11.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
46.	Ramagundam Super Thermal Power Project Stage-I, Units # 1,2&3 – 3x200 MW	National Thermal Power Corporation	120/174 TPH	1983/84/ 85	The system is similar to Vijayawada units under S.No. 24 but without the facility of dry fly ash collection in silo.
47.	Obra TPS Booster Station Units # 9 to 13 - 5x200 MW	U P State Electricity Board	-	1991	Extension of ash disposal line and replacement of 3rd stage ash disposal pumps (D-85). Completion delayed due to non-availability of working fronts.
48.	Neyveli Lignite Corpn. Second Thermal Power Station, 3x210 MW Units	Neyveli Lignite Corporation	150 TPH	1985/86/87	The system is similar to Singrauli STPP at No. 37 except bottom ash hopper supplied by the Boiler manufacturer.
49.	Ropar Thermal Power Station Units # 1&2 - 2x210 MW	Punjab State Electricity Board	150 TPH	1984/85	The system is similar to Singrauli STPP at S.No.37.
50.	Wanakbori Thermal Power Station, Units # 4, 5 & 6 – 3x210 MW (Stage-II)	Gujarat Electricity Board	90/150 TPH	1986/87	The system is identical to Wanakbori TP Station, Stage-I at S.No.36.
51.	Sabarmati Thermal Power Station Unit-E, 1x110 MW Modification of Unit # D	Ahmedabad Electricity Company Limited	60/80 TPH	1984/85	The system is similar to GNDTP at S.No.4. Unit #D also modified to minimize the water requirement. Frame D-85 ash slurry pumps Installed.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
52.	Panipat Thermal Power Station Extn. Stage-III 1x210 MW Unit	Haryana State Electricity Board	80/160T PH	1989	The system is similar to GNDTP units under S.No.4.
53.	Durgapur Thermal Power Station Units # 1&2 – 2x75 MW Ash Handling Plant	Damodar Valley Corporation	35 TPH	1991	Additional collection and Pneumatic transportation system for new ESP fly ash hoppers - (Work postponed by client).
54.	Sikka Thermal Power Station Unit # 1 - 120 MW Ash Handling System	Gujarat Electricity Board	50/60 TPH	1988	The system is similar to Nangal Expansion Project at S.No.8.
55.	Satpura Thermal Power Station 5x62.5 MW Units - Modifications	Madhya Pradesh Electricity Board	80 TPH	1985/86	Continuous collection and wet transportation of fly ash slurry from ESP to ash slurry sump for disposal.
56.	Damanjodi - Steam and Power Generation Plant, Orissa	NALCO	70 TPH	1986/87	Continuous collection of bottom and fly ash and wet transportation of ash slurry from ESP to ash slurry sump.

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57.	Barauni Captive Power Plant, Bihar 2x70 TPH Ash Handling System	Hindustan Fertilizer Corpn. Limited	48/40 TPH	1987/88	Bottom ash is collected in a storage type bottom ash hopper and is disposed off directly through pipeline using jet pump. Fly ash is pneumatically extracted and the slurry directly disposed off by gravity. Similar to Phulphur Project at S.No.19.
58.	Visakhapatnam Steel Project, A.P.; 5x330 TPH Boilers Ash Handling Plant	Rashtriya Ispat Nigam Limited	120/125 TPH	1989	The system is similar to Ramagundam STPP under S.No. 46. Two units already commissioned.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
59.	Panki Thermal Power Station - 2x32 MW Units (Modification of Ash Disposal System)	U P State Electricity Board	30 TPH	1990	Collection and wet transportation of fly ash slurry from silos to Ash Dump Area.
60.	Chandrapur TP Station Units #1&2 – Modification of Fly Ash Handling System (MSEB)	Associated Cement Companies	-	1985	Modification of existing controls and interlocks to enable ACC collect dry fly ash from the ESP hoppers.

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61.	Khammam Chemical Refinery, Captive Power Plant 3x265 TPH Steam Generators – Ash Handling System	Tata Projects Ltd. Deptt. of Atomic Energy	65/22 TPH each unit	1989/ 90/91	Storage type bottom ash hopper. Bottom ash is conveyed to the sump by a hydrojector. Fly ash mixed with water to form slurry under the hoppers and is conveyed to FA sump through sluice way trenches continuously. Both BA and FA slurries are pumped separately to the disposal area using CD-135 hydroseal ash slurry pumps. Project delayed due to supply of Boilers by ABL, Durgapur.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
62.	Guru Nanak Dev Thermal Plant, Bhatinda, Augmentation of Fly Ash System for New ESPs of Unit # 4 (1x110 MW)	Punjab State Electricity Board	85 TPH	1985	Fly ash evacuated in dry form by vacuum and is mixed with water to form slurry in an elevated collector tank. Ash slurry is conveyed by gravity to slurry sump and pumped upto ash disposal area with the existing pumping system.
63.	Gandhinagar Thermal Power Station – Augmentation of fly ash system for New ESPs of Units # 1&2	Gujarat Electricity Board	80 TPH	1987	Fly ash collected in dry form by vacuum is mixed with water to form slurry in an elevated air separator tank. Ash slurry conveyed by gravity to ash disposal area.

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64.	Ramagundam Super Thermal Power Station Stage-II, 3x500 MW Units 4, 5 & 6	National Thermal Power Corporation	120/500 TPH	1988/1989	Similar to Chandrapur Units under S.No. 40 Storage type bottom ash hopper. Bottom ash transported to common bottom ash slurry sump once per shift for disposal with slurry pumps. Fly ash is evacuated with feeder ejectors and slurry disposed with fly ash slurry sump. BA & FA slurries pumped independently. Programmable Logic Controllers are used.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
65.	Kothagudem Thermal Power Station 'A' 1x60 MW Unit # 3 - APSEB	Voltas Limited	210 TPH	1988	Renovation of fly ash system. Fly ash is evacuated with feeder ejectors and resultant slurry transported to existing slurry sump for disposal.
66.	Kothagudem Thermal Power Station 'A' 1x60 MW Unit # 4 – APSEB	Andhra Pradesh Heavy Machinery & Engineering Ltd.	210TPH	1990	Renovation of fly ash system. Fly ash is evacuated with feeder ejectors and resultant slurry transported to existing slurry sump for disposal.

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67.	Vijayawada Thermal Power Station, Stage-II, 2x210 MW, Units # 3&4	Andhra Pradesh State Elect. Board	150/174 TPH	1989/90	The overall ash handling system is similar to Vijaya-wada Stage-I, (Units # 1&2) under S.No. 24, except BA hopper has scraper conveyor. The system includes complete ash disposal piping. Frame D-85D ash slurry pumps provided.
68.	Guru Nanak Dev Thermal Plant, Bhatinda, Augmentation of Fly Ash System for New ESPs of Unit # 3 (1x110 MW)	Punjab State Electricity Board	85 TPH	1987	The system is similar to the system described under S.No. 62 Guru Nanak Dev Thermal Plant Bhatinda, Unit # 4.

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1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
69.	Renusagar Thermal Power Station – Modification of ash handling system for new ESPs of Unit # 3, 4 & 5	Renusagar Power Company Limited	150 TPH	1987/88	The system is similar to the system described under S.No. 62 Guru Nanak Dev Thermal Plant, Bhatinda, Unit # 4.
70.	Ropar Thermal Power Station Stage-II, 2x210 MW Units # 3&4	Punjab State Electricity Board	140 TPH	1988/89	Storage type bottom ash hopper. Continuous handling of fly ash in wet form. Bottom ash and fly ash slurries pumped to disposal area by using Frame CD-135 hydroseal ash slurry pumps.
71.	Indraprastha Power Station, Units # 2,3&4, 3x67.5 MW	Delhi Electric Supply Undertaking	80 TPH	1987/88	Augmentation of Fly ash System for New ESPs using vacuum system.

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72.	Kothagudem Thermal Power Station 'B' – Units # 5& 6	Andhra Pradesh State Electricity Board	100 TPH	1988	Augmentation of Fly ash system for New ESP's using vacuum system with water re-circulation similar to Kothagudem Units # 7& 8 under S.No. 14 - Unit No. 6 commissioned .
73.	Talcher Thermal Power Station, Rehabilitation Work Stage-I, 4x62.5 MW Units	Orissa State Electricity Board	80/160 TPH	1988/89	Modification of existing bottom ash system and augmentation of the fly ash handling system for the New ESPs using vacuum upto air separator tank. The bottom ash and fly ash slurries are pumped by Frame D-85 hydroseal slurry pumps upto disposal area.

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74.	Ramagundam Thermal Power Station 'B' 1x62.5 MW Unit – Fly Ash Handling System for New ESP	Andhra Pradesh State Electricity Board	90 TPH	1988	Augmentation of Fly ash handling system for the New ESPs by vacuum system upto Collector tank and disposal of slurry by existing slurry disposal system similar to Kothagudem Units # 7 & 8 Under S. No. 14.
75.	Wadi Cement Works Captive Power Plant 1x25 MW Unit	A.C.C.	60 TPH	1987	Rectification and augmentation of bottom ash system. Storage type bottom ash hopper; slurry jetted to a hydrobin by hydro-ejector through 200 NB pipeline.

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76.	Guru Nanak Dev Thermal Plant, Bhatinda, Units # 1& 2, 2x110 MW	Punjab State Electricity Board	80 TPH	1987/88	This system is similar to the system described under S. No. 62, GNDTP Unit # 4. Servicing dry fly ash collection by vacuum-cum-pressure system is also included in scope.
77.	Mettur Thermal Power Station – Unit # 4 – 210 MW	Tamil Nadu Electricity Board	110 TPH	1990	Bottom ash and fly ash is collected and disposed off in slurry form continuously upto disposal area using hydroseal ash slurry pump frame D85D.

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78.	Durgapur Projects Power Station, Units # 1 & 2 (2x30 MW) – Renovation of Ash Handling System	Durgapur Projects Ltd.	18 TPH	1990	Both bottom ash and fly ash removal in dry state pneumatically by vacuum produced by hydrovactor and conveyed upto a silo. Dry ash to be unloaded into trucks thru hydromix dust conditioner for further disposal.

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79.	Sabarmati Thermal Power Station, Unit 'F' - 110 MW – Ash Handling System	Ahmedabad Electricity Company Limited	80/84 TPH	1989	Bottom ash from storage type hopper jetted into common slurry sump by hydrojector. Fly ash is removed by vacuum system in dry form upto elevated collector tanks where it is mixed with water and discharged into slurry sump. Bottom and fly ash slurries pumped to disposal area by CD-135 hydroseal pumps.

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80.	Badarpur Thermal Power Station Stage-I, 3x100 MW – Ash Handling System Renovation and Modification (New ESP)	National Thermal Power Corporation	120 TPH	1989	Fly ash is evacuated with Feeder Ejector and discharged into the existing slurry sump through hydro sluicing. Programmable Logic Controllers are used. One unit commissioned.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
81.	Ramagundam Unit Fluidized Bed Combustion Boiler Project - 1x85 TPH Ash Handling System	The Fertilizer Corpn. of India Limited	68/48 TPH	1989	Bottom ash from storage type hopper is jetted into the common slurry sump by hydrojector. Fly ash is removed by vacuum system in dry form upto the elevated Air Separator Tank where it is mixed with water and discharged into the slurry sump. Bottom and fly ash slurries are pumped to disposal area by CD-135 hydroseal pumps. (Ash Handling System of the FBC Boiler includes the integration with that of the existing service boilers).

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
82.	Ennore Thermal Power Station Units # 1 to 5 – Integrated Ash Handling System	Tamil Nadu Electricity Board	-	1988/89	Fly ash is collected and disposed off in slurry form continuously upto the disposal area using CD-135 hydroseal ash slurry pumps (Existing facilities to be used for Units # 1 to 4). Three (3) units commissioned .

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
83.	Rajghat Power House 1x15 MW – Ash Handling System	Delhi Electric Supply Undertaking	30/24 TPH	1991	Provision of storage type water impounded Bottom ash system in place of existing continuous type scraper conveyor system. Fly ash is removed by vacuum system using hydrovactor and fly ash slurry directly disposed to Disposal area by gravity.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
84.	Patratu Thermal Power Station Units # 1 to 6, 7& 8 – Fly Ash Handling System	Bihar State Electricity Board	160 T/H (1 to 6) (80 TPH (7& 8))	Unit-3 – 1993 Unit-5 – 1993 Unit-7 – 1994 Unit-8 – 1994	Fly ash is collected by vacuum system (Re-circulation water type) and disposed off in slurry form intermittently upto disposal area using existing ash disposal pumps & pipeline.
85.	Barauni Thermal Power Station - Units 4&5 Fly Ash Handling System	Bihar State Electricity Board	80TPH	1997	Fly ash is collected by vacuum system (Re-circulation water type) and disposed off in slurry form intermittently upto disposal area using CD-135 hydroseal ash slurry pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
86.	Farakka Super Thermal Power Project, Stage-II Units # 4&5 (2x500 MW) Ash Handling System	National Thermal Power Corporation, Limited	180/590 TPH	1993/1994	Similar to Ramagundam Stage-II (3x500 MW) Units # 4, 5 & 6 under Sl.No. 64. Bottom Ash; storage type hopper, deashing by jet pumps. ESP and AHP Fly Ash; evacuated by Feeder Ejectors. Coarse ash (Eco ash) system is similar to bottom ash system. BA & FA slurries pumped independently (FA slurry pumps 1700 M ³ /hr. & BA slurry pumps 1300 M ³ /Hr). Programmable Logic Controller is used.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
87.	Tuticorin Thermal Power Station– Stage-III, Extn. Units # 4 & 5 – Ash Handling System	Tamil Nadu Electricity Board	140 TPH	1991/1992	Similar to Mettur TPS Unit # 4 under S.No. 77 except Ash slurry is disposed in Basalt line pipe.
88.	Badarpur Thermal Power Station Stage-II – Ash Disposal System	National Thermal Power Corporation Ltd.	-	1994	-

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
89.	TVNL - Tenughat Thermal Power Station Stage-I 2x210 MW Units # 1&2 Ash Handling Plant	Bharat Heavy Electricals Ltd.	120 TPH	1997	Storage type bottom ash hopper. BA slurry is jetted into common slurry sump using Hydrojector. Fly ash is evacuated in dry form by vacuum and mixed with water in an elevated Air separator tank (once through cycle) and the resultant slurry conveyed by gravity up to common slurry sump. Bottom and fly ash slurry further pumped to disposal area using frame CD-135 Hydro-seal Pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
90.	Panki Thermal Power Station, Stage-II, Units # 3&4 (2x110 MW) - Modification of Ash Disposal System	U P State Electricity Board	25/30 TPH	1993	Bottom Ash System modified to transport the ash slurry by Hydroejector upto new ash slurry sump. F.A. in form of slurry discharged into ash sluice trench and transported by gravity upto new ash slurry sump. From the ash slurry sump, B.A. and F.A. slurries are pumped upto the ash disposal area using CD-135, hydroseal ash slurry pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
91.	Raichur Thermal Power Station Stage-II, Unit # 3 (1x210 MW) - Ash Handling System	Karnataka Power Corporation Ltd.	120/120 TPH	1991	Storage type Bottom Ash Hopper. B.A. slurry is jetted into common slurry sump using hydroejector. Fly ash is evacuated in dry form, mixed with water in an elevated collector tank and conveyed as slurry upto common slurry sump. BA and FA slurry sump pumped upto disposal area by CD-135 hydroseal pumps.
92.	Kahalgaon STPP Stage-I (4x200 MW) - Ash Handling System	National Thermal Power Corporation, Ltd.	-	Unit # 1 – 1993 Unit # 2 – 1994 Unit # 3 – 1995 Unit # 4 – 1996	Fly Ash & Bottom Ash Disposal System.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
93.	National Capital Thermal Power Project – Dadri (4x210 MW) - Ash Handling System	National Thermal Power Corporation	2x60 T/H (F.A) 2x60 T/H (B.A)	Unit # 1 – 1992 Unit # 2 – 1993 Unit # 3 – 1994 Unit # 4 - 1995	The largest ash handling plant in Asia, having long distance Vacuum-cum-pressure conveying system for fly ash. Storage type bottom ash hopper. BA slurry is jetted through hydro-ejector to hydrobins de-watering bins situated at a distance of approx. One Km. From there dry ash is transported to disposal area through conveyors. Fly ash from various hoppers is conveyed to transfer tanks by vacuum using vacuum pumps and is further transported to ash silos situated at a

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
94.	Ropar Thermal Power Station, Stage-III, 2x210 MW, Units # 5 & 6	Punjab State Electricity Board	2x120 T/H- BA 65 TPH (FA)	1993	Storage type bottom ash hopper. Continuous handling of fly ash by wet sluicing system. Bottom ash and fly ash slurries pumped to disposal area using frame D-85D double casing hydro-seal slurry pumps.
95.	Ukai Thermal Power Station and Magdalla Dry Fly Ash System	Narmada Cement Company Ltd.	2x40 TPH (FA)	1991	Dry fly ash collection in a silo.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
96.	Ramagundam Unit – Steam Generating Unit Boilers 1, 2 & 3	The Fertilizer Corporation of India Limited	40 TPH (FA)	1992	Fly ash is handled by vacuum system in dry form upto existing air separator tank where it is mixed with water and discharged with slurry sump. This is integrated with existing system at Sl. No. 81 above.
97.	Chandrapura Thermal Power Station Unit # 1 Ash Handling System	Damodar Valley Corporation	40 TPH	1991	Fly Ash is evacuated in dry form and transported to ash slurry sump after mixing with water in wetting head and collector tank.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
98.	Nagda Steam Generators	GRASIM Ltd.	20 TPH	1992	Bottom Ash is collected in water impounded hopper and disposed through hydro-ejector upto hydrobin. Fly ash is evacuated in dry form & collected in ash silo.
99.	Faridabad Thermal Power Station	Haryana State Electricity Board	2x60 TPH	1994	Modification of existing flushing system below ESP hoppers.
100.	Wanakbori Thermal Power Station– 6x210 MW Extension of Ash Disposal Pipe Lines	Gujarat Electricity Board	-	1992	Extension of Ash Disposal Pipe lines and addition of 12 Nos. Ash slurry pumps (CD-135).
101.	Vijayawada Thermal Power Station, Stage-I, Unit # 1 & 2	APSEB	-	1991	Supply of additional three (3) Nos. Ash Slurry Pumping (D-85D) System.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
102.	Durgapur Projects Power Station Unit # 3, 4 & 5 (3x75 MW)	Durgapur Projects Ltd.	60/3x40 TPH	Unit # 3 - 1995	Storage type Bottom Ash Hopper. Ash is jetted into common slurry sump using hydroejector. Fly ash is evacuated in dry form and conveyed upto slurry sump by gravity. Ash slurry is disposed of using slurry pumps.
103.	Rourkela Steel Plant – Revamping of Power Plant No. 1 – Ash Handling System	Steel Authority of India Ltd.	40/40 TPH	Unit # 1 – 1994 Unit # 2 – 1995	Storage type Bottom Ash Hopper. B.A. slurry is jetted into common slurry sump using hydroejector. Fly ash is evacuated in dry form and disposed off in wet slurry form using CD-135 slurry pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
104.	Nangal Unit, Steam Generation Plant Boiler 3x182 TPH	National Fertilizer Limited	30/45 TPH	1992	B.A. slurry is jetted into common slurry sump using existing Hydro-ejector. Fly ash is evacuated in dry form upto Air separator tank. BA & FA systems increased to 200 NB from existing 150 NB.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
105.	Talcher Super Thermal Power Project Stage-I (2x500 MW)	National Thermal Power Corporation, Ltd.	120/120 TPH	Unit # 1 - 1995 Unit # 2 - 1996	Bottom Ash is collected in water impounded hopper and ash slurry is jetted upto common ash slurry sump. Fly Ash is evacuated in dry from upto wetting head/ collector tank and slurry is conveyed upto common ash slurry sump. Ash slurry is pumped to ash disposal area using D-85D pumps
106.	Vijayawada Thermal Power Station, Stage-I Units # 1 & 2	APSEB	-	1994	Supply of additional six (6) Nos. 3rd Stage Ash Slurry Pumping (CD-135) System.
107.	Sikka Thermal Power Station Extn. Stage-II, Unit # 2 (120 MW)	Gujarat Electricity Board	120/90 TPH	1992	This system is similar to Sikka TPS Stage-I Units except silo.

Sl. No.	Plant	Client	Ash Handling System- Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
108.	Raichur Thermal Power Station Units # 1, 2 & 3 (210 MW) Ash Handling System	Karnataka Power Corporation, Ltd.	-	1992	Supply of additional six (6) Nos. 3rd Stage Ash Slurry Pumping (CD-135) systems.
109.	Bandel TPS Unit # 5 (1x210 MW) Fly Ash Disposal System	West Bengal State Electricity Board	35 TPH	1993	Dry fly ash collection system using 3 Cell Collector & Pressure conveying upto Brick Plant Silo.
110.	IB Thermal Power Station Unit # 1 & 2 Ash Handling Plant (2x210 MW)	Orissa State Electricity Board	140 TPH	Unit # 1 - 1994 Unit # 2 - 1996	Storage type bottom ash hopper, continuous handling of Fly ash in wet form. Bottom ash and fly ash slurries are pumped to disposal area using Frame D-85D hydroseal ash slurry pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
111.	Chandrapura Thermal Power Station Unit # 2	Damodar Valley Corporation	40 TPH	1993	Fly Ash is evacuated in dry form and transported to ash slurry sump after mixing with water in wetting head and collector tank
112.	Koradi Thermal Power Station Unit # 5 (200 MW) Fly ash handling Renovation Scheme	Maharashtra State Electricity Board	140 TPH	1997	Fly ash evacuation system using feeder ejectors and resultant slurry transported to the existing slurry sump through vertical slurry pump.
113.	Parichha Thermal Power Project – Dry Fly Ash Conveying System	Diamond Cements	40 TPH	1993	Dry Fly Ash Collected in '3' cell collector and transported to silo through conveying air blowers.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
114.	Parli Thermal Power Station Unit # 3 (1x210 MW) Retrofitting of Fly Ash Handling System	Maharashtra State Electricity Board	120 TPH	1995	Fly ash evacuation system using Feeder ejector and resultant slurry transported through Hydroejectors to existing main slurry tank.
115.	Chandrapura Thermal Power Station Units # 3, 4, 5& 6	Damodar Valley Corporation	40/45 TPH	1995	Fly ash is evacuated in dry form and transported to ash slurry sump after mixing with water in wetting head and collector tank.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
116.	Dahanu Thermal Power Project 2x250 MW Units Ash Handling Plant	Bombay Suburban Electric Supply Ltd.	120/160 TPH	Unit # 1 - 1994 Unit # 2 - 1995	Storage type bottom ash hopper. Bottom ash transported to ash slurry sump once per shift for disposal with slurry pumps. Coarse & fly ash is evacuated with feeder ejectors and slurry disposed off to ash slurry sump. BA & FA slurries pumped independently. Programmable Logic Controller provided.
117.	Raichur Thermal Power Station Stage- II, Unit# 4 (1x210 MW) Ash Handling System	Karnataka Power Corporation, Ltd	120/200 TPH	1995	Similar to Raichur TPS Stage-II, Unit # 3 under Sl. No. 91.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
118.	Vijayawada Thermal Power Station Stage-III 2x210 MW, Units # 5&6	Andhra Pradesh State Electricity Board	130/180 TPH	1994	Bottom Ash is collected in water impounded hopper and ash slurry jetted upto common ash slurry sump. Fly Ash is evacuated in dry form using Mechanical Exhauster (Vacuum Pumps) upto wetting head/collector tank for wet disposal or '3'-cell collector for dry collection using blowers to transport ash upto silo. The wet ash is pumped to ash disposal area using CD-135D pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
119.	NTPC-BALCO TPS Additional E.S.P.	ACC Babcock	25 TPH	1994/95	Fly Ash is evacuated in dry form using Hydrovactor and transported to ash slurry sump after mixing with water in wetting head and collectors tank. Provision is there for dry fly ash collection.
120.	Chandrapura Thermal Power Station Units # 1to 6 – Renovation and Modification of Ash Slurry Disposal System	Damodar Valley Corporation	-	Execution	Supply of additional six (6) Nos. 4th Stage Ash Slurry Pumping (CD-135D, 3 Vane) System.
121.	Barauni Captive Power Plant, 2x70 TPH - Fly Ash Handling System	Hindustan Fertiliser Corpn. Limited	40 TPH	Execution	Fly Ash is pneumatically extracted from new ESP of one (1) unit upto existing Hydrovactor, Air separator Tank.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
122.	Kothagudem Thermal Power Station 'C'.	A.P. State Electricity Board	-	1994	Modification of existing Ash Slurry Pumps.
1 23.	Tamil Nadu Newsprint and Papers Ltd. - 4x60 TPH Boilers	TNPL	40 TPH	1995	Dry Fly Ash Handling System for the existing three (3) boilers and one (1) proposed additional boiler units.
124.	Shriram Fertilizers & Chemicals Ltd - 2x30 MW Boilers	SFC	20 TPH	1994	Fly Ash is evacuated in dry form using Mechanical Exhauster (Vacuum Pumps) upto wetting head/ Collector tank for wet disposal.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
125.	The Ahmedabad Electricity Co. 1x60 MW P.F. Boiler replacement Project Ash handling system	AECO	80/30 TPH	Execution	Bottom ash collected in water impounded hopper and ash slurry jetted upto slurry sump. FA is evacuated in dry form using mechanical Exhauster (Vacuum Pumps) upto F.A. Silo.
126.	Nestle India Limited - 1x14 TPH, FBC Boiler - Fly Ash Collection System	Nestle India, Limited	4 TPH	1995	Bed/Fly Ash is evacuated in dry form using Mechanical Exhauster (Vacuum Pump) upto Silo

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
127.	Kothagudem Thermal Power Station Stage- V, 2x250 MW Units # 9 & 10, Ash Handling Plant	Andhra Pradesh State Electricity Board	BA - 2x120 TPH CA - 32 TPH FA - 4x53.5TPH	1998	Bottom Ash collected in water impounded hopper and ash slurry jetted to common ash slurry sump. Coarse ash evacuated thru Feeder ejector in wet form and Fly ash is evacuated in dry form using Mechanical Exhauster (Vacuum Pumps) upto wetting head/ collector tank for wet disposal or dust collectors for dry conveying upto silo using blowers. The wet ash is pumped to ash disposal area using slurry pumps. This is similar to VTPS Stage – III under S.No.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
128.	Durgapur Thermal Power Station, Unit # 3 (1x75 MW) – New E.S.P	Damodar Valley Corporation	40 T	1998	Fly Ash is evacuated using Mechanical Exhauster and transported to existing slurry sump after mixing with water in wetting head and collector tank.
129.	Renukoot Captive Thermal Power Plant, Stage - I, 1x25 MW – Ash Handling System	Kanoria Chemicals & Industries Limited	44/65 TPH	1998	Bed Ash is handled in slurry form upto disposal area using Vertical slurry pump. Dry Fly Ash is evacuated and conveyed upto makeup/ main silo by pressure pneumatic system using Airlock Valves.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
130.	Ukai Thermal Power Station Units # 1 & 2 (2x120 MW) Augmentation of Ash Handling Plant	G. E.B.	Wet - 35TPH Dry - 30 TPH	1998	Fly Ash evacuated in dry form by vacuum is mixed with water to form slurry in an elevated Air separator Tank alternatively dry fly ash collected in storage silo.
131.	Durgapur TPS, Unit # 4 Fly Ash Handling System for two (2) new ESPs.	DVC	20 TPH	1998	Fly ash mixed with water using flushing Apparatus and conveyed to existing slurry sump thru trenches.
132.	Kothagudem Thermal Power Station 'C' - Units # 7 & 8 Renovation/ Modification of Fly Ash Handling System	APSEB	35 TPH	1998	Additional stream for Fly Ash Handling System upto slurry sump.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
133.	Karbigahia TPS, 2x5 MW	BSEB		1998	Ash and coal handling system mechanisation of Units # 3 & 4
134.	Wanakbori Thermal Power Station Extn. Unit # 7 1x210 MW	G.E.B.	1x104 TPH/ 3x37 TPH	1998	Bottom Ash Collected in water impounded "V" Shaped hopper and slurry jetted to common Ash Slurry Sump. Fly Ash is evacuated using Mechanical Exhauster (Vacuum Pump) upto Wetting Head/Collector Tank for wet disposal or silo Mounted Dust Collector for dry collection into silo. The wet ash is pumped to ash disposal area using slurry pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
135.	Vindychal Super Thermal Power Project Stage II (2x500 MW) - Ash Handling System	National Thermal Power Corpn. Ltd.	2x44 TPH/ 2x184 TPH	Execution	Bottom Ash is collected in water impounded hopper and ash slurry is jetted upto common ash Slurry sump. Fly Ash is Evacuated in dry form upto Wetting Head/ Collector Tank for wet disposal and slurry is conveyed upto common ash slurry sump or Dry Fly Ash is conveyed in Dry form upto Silo using Vacuum-cum-pressure conveying system using Buffer Hopper. The Ash Slurry from Slurry Sump is pumped to Ash Disposal Area using Slurry Pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
136.	Talcher Thermal Power Station Unit # 5& 6 (2x110 MW) - Fly Ash Storage Plant Package	NTPC	2x40 TPH	Execution	A top off connection is taken from the existing system for dry collection in silo using silo mounted dust collectors.
137.	Farakka Super Thermal Power Station Stage-I (3x200 MW) Dry Ash Extraction & Transportation Plant Package	National Thermal Power Corpn. Ltd.	35 TPH	Execution	Fly Ash is evacuated in dry form using Mechanical Exhauster upto Buffer Hopper and conveyed upto silo under pressure using conveying Air Blower.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
138.	Kahalgaoon Super Thermal Power Station Stage–I (4x210 MW) Dry Ash Extraction & Transportation Plant Package	National Thermal Power Corpn. Ltd.	35 TPH	Execution	Fly Ash is evacuated in dry form using Mechanical Exhauster upto Buffer Hopper and conveyed upto silo under pressure using conveying Air Blower.
139.	Power Generation Project	Rain Calcining Ltd.	-	1998	Supply of Ash Handling equipment for Fly Ash & Bed Ash.
140.	Steam Generation Plant at Sindri, Boiler Units 1, 2& 3, Fly Ash Handling system	Fertilizers Corpn. Of India Ltd.	-	1998	Design, Engineering, Manufacturing Supply delivery erection & commissioning of Ash Handling System.
141.	Hindustan Fertilizer Corporation Limited	HFCL	-	1998	Supply and Erection of Fly Ash Disposal System.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
142.	Wanakbori Thermal Power Station, Units # 1 to 6	Gujarat Electricity Board	-	1998	New extension of Ash Disposal Pipe line beyond existing Point No. 7 to ADP No. 8 in Ash Dyke–4 area.
143.	Durgapur Thermal Power Station Units # 3, 4 & 5 –	The Durgapur Projects Limited	-	1998	Supply, installation, testing and commissioning of associated Ash Handling System of new Electro-static Precipitators.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System	
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.	
144.	Panipat TPS Stage-I Units # 1&2 (2x110 MW) Ash Handling System of Retrofit ESP	HSEB	-	Execution	Bottom Ash Collected in Water impounded V-shaped hopper and slurry jetted to common ash slurry sump fly ash is evacuated using Mechanical Exhauster (Vacuum Pump) upto wetting head/collector tank for wet disposal. The wet ash is pumped to ash disposal area using slurry Pumps.	

Sl. No.	Plant	Client	Ash Handling System- Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
145.	Renusagar Power Divn. - 8 Units - 575 MW + 1x290 TPH Boiler # 9 of Expansion Stage-V for all 8 Units	Hindalco Industries Limited	1200 m ³ /hr.	1998	<p>1. Turnkey long distance ash pumping project of Ash Disposal System for 575 MW capacity & one spare boiler (from Renusagar to Bichari tols, About 7 KM)</p> <p>2. Engineering, Supply, Erection & Commissioning of Ash Handling System for 290 TPH</p>

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
146.	Korba Super Thermal Power Project, Stage-II (3x500 MW)	National Thermal Power Corp. Ltd.	216 (F.A.)	Execution	Fly Ash is evacuated in dry form upto Wetting Head/ Collector Tank for wet disposal and slurry is conveyed upto common ash slurry sump or dry fly ash is conveyed in dry form upto silo using vacuum-cum-pressure conveying system using buffer hopper. The ash slurry from slurry sump is pumped to ash disposal area using slurry pumps.
147.	Sikka Thermal Power Station	Gujarat Ambuja Cement Ltd.	-	Execution	Dry Fly Ash Collection in Silo.
148.	Balco Captive Power Plant Booster Pump Package (Augmn.)	NTPC	-	Execution	Modification of existing Ash Slurry Pumps.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
149.	Panipat TPS Stage-I Up-gradation of Ash Slurry Disposal System	ABB	-	Execution	Replacement of existing four (4) Nos. Ash Slurry Pumps with higher capacity D-85 Indian Pumps with motor & rotation & extension of executing Ash Slurry pumps.
150.	EVN – Phalai Thermal Power Plant No. 2 (2x300 MW)	Hyundai Engg. & Construction Co. Ltd.	2x60 TPH (B.A.) 2x40 TPH (F.A.)	Execution	Bottom ash collected in water impounded hopper and ash slurry transported upto slurry sump. FA evacuated in dry form using mechanical exhauster (Vacuum Pumps) upto FA silo. Ash water recovery system also provided.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
151.	Suratgarh Thermal Power Station, Stage-II, Units # 3&4 (2x250 MW)	Rajasthan State Electricity Board	2x60 TPH (B.A.) 1x25 TPH (C.A.) 5x45 TPH (F.A.)	Executing	Bottom Ash is collected in water impounded hopper and ash slurry is jetted common ash Slurry sump. Fly Ash is Evacuated in dry form upto Wetting Head/Collector Tank for wet disposal and slurry is conveyed common ash slurry sump. The Ash Slurry from Slurry Sump is Pumped to Ash Disposal Area using Slurry Pumps.
152.	Godavari Sugar Mills Ltd. – 24 MW Bagasse Power Plant	B.S.E.S.	2x16 TPH	Execution	Bed/Fly Ash is evacuated in dry form using Mechanical Exhauster (Vacuum Pump) upto Silo

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.
153.	Angul Unit # 7 (1x120 MW) CPP Expansion, Ash Handling Plant	NALCO	51 TPH (B.A.) 40 TPH (F.A.)	Execution	Bottom ash collected in water impounded hopper and slurry is transferred to existing slurry sump thru jet pumps/trenches. Dry fly ash is evacuated from ESP hoppers using Dense Phase pressure system to silos for Dry unloading or mixed with water below silos to form slurry for disposal to the dyke by slurry pump.
154.	Korba Thermal Power Station Refurbishment of 4x50 MW Units Ash Handling System	ABB – Alstom	6 TPH (B.A.) 20 TPH (F.A.)	Execution	R&M of existing Ash Handling System. Consisting of Scraper Chain Conveyor for Bottom ash. Feeder ejectors for fly ash and ash slurry disposal to ash pond.

Sl. No.	Plant	Client	Ash Handling System– Each Unit Capacity	Year of Initial Operation	Brief Description of System	
1.	Indraprastha Power Station Unit # 5 – 1x62.5 MW	Delhi Electric Supply Undertaking	40TPH	1971	Bottom Ash collected in pit and disposed off with Jet Pump. Dry Fly Ash Evacuation System.	
155.	Anpara “B” TPS (2x500 MW) Dry Fly Ash Collection System		Vacuum: 2x40 TPH Pressure: 1x80 TPH	Execution	Ash handling plant having long distance Vacuum–cum–pressure conveying system for fly ash. Storage type bottom ash hopper. Fly ash from various hoppers is Conveyed to transfer tanks by vacuum using vacuum pumps and is further transported to ash silos situated at a distance of approx. 1.5 KM by pressure. Conveying using screw compressors.	