REGIONAL OFFICE
U. P. POLLUTION CONTROL BOARD
B-16, AVAS VIKAS COLONY,
UNNAO

Ref.: -044/ro-107/19 Date: 06-06-19

To,

Registrar General,
Hon'ble National Green Tribunal,
Faridkot House, Copernicus Marg,
Near India Gate, New Delhi-110001

Subject: **Compliance report of order dated April 09, 2019 of Hon'ble NGT in O.A. No. 387/2019 in the matter of Adil Ansari Vs State of Uttar Pradesh & Ors.- reg.**

Sir,

Please refer the above mentioned subject, as order passed by Hon'ble NGT in OA No. 387/2019 in the matter of Adil Ansari Vs State of Uttar Pradesh & Ors. dated April 09, 2019 to file the report within two months. In compliance with aforesaid order, inspection report of joint team of officials of Regional Office, U. P. Pollution Control Board, Unnao and Regional Directorate, Central Pollution Control Board, Lucknow is being enclosed herewith for your kind consideration.

Enclosure: as above

Yours' faithfully

(Vimal Kumar)
Regional Officer

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Regional Directorate (North), Lucknow	Regional Office, Unnao

Inspection Report of: **M/s Agricom Foods Pvt. Ltd., B32-B47, UPSIDC, LTP, Sikandarpur Karan, Unnao (U.P.)**

Background of Inspection: As per NGT order dated 09.04.2019 w.r.t. OA No. 387/2019 inspection of seven (07) slaughter houses in Unnao District was to be carried out by joint teams of CPCB and UPPCB. M/s Agricom Foods Pvt. Ltd., B32-B47, UPSIDC, LTP, Banthar, Block Sikandarpur Karan, Unnao (U.P.) was inspected on April 26, 2019 and May 01, 2019 in reference to the above mentioned NGT order. The unit was reinspected on 01.05.2019 for the reason that on 26.04.2019 the unit was non-functional and no slaughtering activity carried out. Salient observations and recommendations based on the Inspection of the unit are stated below:

	A. GENERAL INFORMATION	
1.	Name & complete Address of the Unit: Latitude & Longitude	M/s Agricom Foods Pvt. Ltd. (*Formerly J. S. International*), B32-B47, UPSIDC, LTP, Banthar, Block Sikandarpur Karan, Unnao (U.P.) $26^0 29'2.04"N$ $80^0 27'54.89"E$
2.	Name of the: occupier/contact person & Contact No.	Dr. Appar, GM, Mob. 7032636945 Mr. Neeraj Trivedi, Manager Corp. Rel., Mob. 7571998800 Mohd. Talha Khan, Assnt. Manager, Mob. 8601765760
3.	E-mail	agricom@allana.com
4.	Operation schedule	8 hours/day
5.	Status of the UNIT (Operational/Non-Operational)	On 26.04.2019: No slaughtering activity however ETP operational On 01.05.2019: Slaughtering process on and ETP operational
6.	Consent Status:	Under Water Act - valid upto 31.12.2019 Under Air Act - valid upto 31.12.2019
7.	Product (s) and Capacity- a) As per consent to operate (CTO) :	Slaughtering : 500 buffalo/goat/sheep per day Frozen meat production : 60 Ton/day Meat Bone Meal (MBM), Bone Tallow, Blood Meal, Poultry Feed Supplement (PFS): Not mentioned in the CTO

B. WATER POLLUTION		
10.	Sources of Fresh water and Consumption (m^3/day)	Two (02) Bore wells Consumption – 294 to 295 m^3/day (as informed) Consented consumption - 400 m^3/day (as per CGWA NOC)
11.	If having bore well, whether permission from CGWA or not?	CGWA NOC valid till 19.07.2019
12.	Availability of Flow: measuring devices	Flow meter installed at all the borewells
13.	Waste Water Generation:(m^3/day)	350 KLD (as per UPPCB consent) Flow meters installed at two places – inlet of ETP and final discharge point. Waste water generation - 307 to 308 KLD (Av. for the duration 01.04.2019 to 25.04.2019) Treated effluent discharge - 147 to 148 KLD Flow meter 1 – 244263.93 m^3
14.	**ETP details:** i. Design capacity- ii. Names of all treatment units in sequence. iii. Sludge dewatering system	350 KLD Flow diagram attached – ***Annexure - I*** Sludge drying beds
15.	Status of ETP	ETP was operational
16.	Whether any **By-pass / multiple Outlets** of Effluent observed	No At the time of Inspection single discharge point was observed.
17.	Method and Ultimate disposal point of effluent:	Through industrial drain to City Jail drain which meets River Ganga
18.	OCEMS Status and Details	Installed and connected to the CPCB server URL – uppcb.aaxisnano.com User Name- jsban Password—J@s%67b
19.	Method of Blood disposal	Coagulation of blood by coagulator unit → Blood Meal

Samples were collected on 26.04.2019 and 01.05.2019 for compliance verification of the final treated effluent discharged to the industrial drain. However on 26.05.2019 no slaughtering activity was observed.

Results of analysis of samples is given below –

Para meter	Sampling location								Standards
	Inlet to ETP		Aeration Tank				ETP Outlet		
			Tank 1		Tank 2				
	26.4.19	1.5.19	26.4.19	1.5.19	26.4.19	1.5.19	26.4.19	1.5.19	
pH	7.07	7.02	-	-	-	-	7.35	7.3	6.5 - 8.5
Colour	500	500	-	-	-	-	10	15	-
SS	5025	2965	-	-	-	-	6.59	8.0	50
TDS	5982	2275	-	-	-	-	1845	2180	-
MLSS	-	-	1583	1171	1503	1006	-	-	-
MLVSS	-	-	1400	988	1231	840	-	-	-
O & G	8.7	64.3	-	-	-	-	BDL	BDL	10
BOD	4833	2450	-	-	-	-	6.2	5.8	30
COD	9598	6008	-	-	-	-	24.9	26.5	250

All numerical values in the above table in mg/l except pH

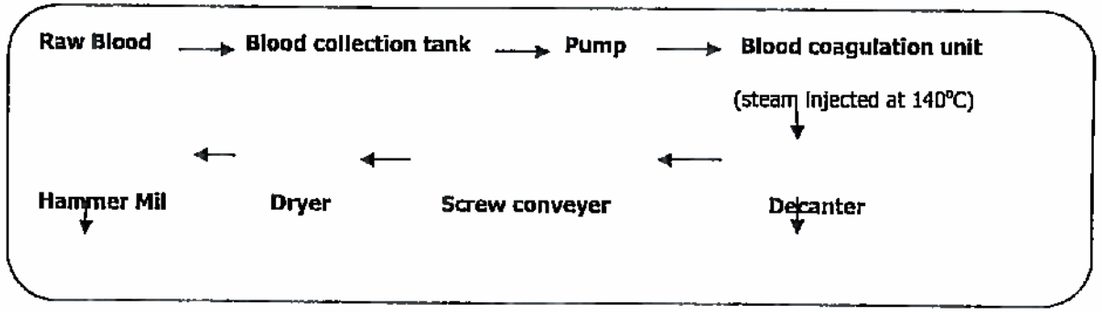
Status: ***Complying***

445 to 450 buffaloes slaughtered against consented number of 500 buffaloes in the month of April during 1st to 25th).

- As per the NOC (valid till 19.07.2019) from CGWA the industry may have five (05) borewells for fresh water consumption. The unit has two operational borewells and as per logbook record, about 294 to 295 m^3/day of fresh water is extracted by the unit against permission of 400 m^3/day by CGWA.
- Effluent generated from all the sections of the slaughter house is directed to an ETP. The ETP comprises of collection chamber, bar screen, solid separator, equalization tank, flash mixer, clariflocculator, aeration 1, primary clarifier, aeration 2, secondary clarifier, polishing tank, disinfection system, MGF, ACF.
- The sample from treated effluent discharge point was collected and analysed.
- The treated effluent sample collected on both the days (26.04.2019 and 01.05.2019) was complying with the standards dated 28.10.2016 notified by MOEF&CC under E (P) Rules, 1986.
- The treated effluent is discharged into the industrial drain outside the premises of the unit. The industrial drain carries wastewater from several other types of industries also.
- The inspection team visited the industrial drain outside the premises, where the unit is discharging its treated effluent, and no visible deviation in the drain was observed. Also, no visible traces of blood were observed in the drain.
- An arrangement for storing the treated effluent (in excess of requirements) in the premises is made by the unit. Treated effluent was found stored in an impermeable final discharge tank.
- The unit has provided sludge drying beds for management of sludge.
- As informed, for the dung and ingesta are handled by an injesta processing plant, where they are completely dried and further used as boiler fuel.
- The Unit has one boiler of 8 TPH capacity. Unit uses dried ingesta and husk as a fuel in the boiler.
- **Management of Blood in the slaughter house:**
  The blood generated in the slaughter house is converted to blood meal. A brief description of the processing of blood in the industry is given below -
  a) Fresh blood from carcass dressing line is collected in stainless steel trough and pumped to blood processing plant through a closed pipe line system.
  b) Fresh blood reaching blood processing plant is retained till required quantity of blood is

f) After milling, blood meal is stored in the blood meal bin to cool down to atmospheric temperature. Blood meal from blood meal bin is filled in the bags and the bags are stored in the warehouse for the dispatch on the first in first out (FIFO) basis.

g) A flow chart of production of blood meal from blood is as follows:



The unit has provided details of

→ generation of blood from slaughtering,
→ its processing to form blood meal,
→ sale of the blood meal, and
→ the existing stock.

➢ As per the record provided by the unit, number of animals slaughtered, blood generated, production of blood meal and sale of blood meal per day for the last three months (February, March to April 2019) is tabulated below:

Sl. No.	Month	No. of animals slaughtered	Blood generation (Ton/day)	Blood meal produced (Ton/day)	Sale of Blood meal
1	February	Nil*	-	-	52.6 Ton*
2.	March (16^{th} onwards)	196 to 464	2.16 to 5.1	0.49 to 1.16	Nil
3.	April (up to 25^{rd})	234 to 463	2.57 to 5.09	0.59 to 1.16	40 Ton

* No production as unit was closed in view of Kumbh 2019. However, 52.6 Ton of blood meal produced earlier and present in stock sold.

The record of production and sale of blood meal document shared by the unit indicates that as on 25.04.2019 the industry has 5.56 Ton of Blood meal stock.

discharging its treated effluent, and no visible deviation in the drain was observed. Also, no visible traces of blood were observed in the drain.

5. The unit shall have periodic assessment of ground water level and maintain logbook for the same.
6. The unit is partially utilizing the treated effluent within the process and premises. However, the unit shall explore total utilization of treated effluent within the process and other in-house activities including horticulture.

24. **Inspecting Officials from CPCB and UPPCB**

CPCB, RD (N), Lucknow		**UPPCB, RO, Unnao**	
Dr. Sarvesh Rai, Sci. 'C'		Mr. Yogesh Mishra, AEE	
Mr. Ravinder Singh, SRF/ Dr. Ravi P. Misra, RA-I		Mr. Shiv Balak, SA	

Photo gallery of M/s Agricom Foods Pvt. Ltd., Unnao	
	
Photo 1: Board at the main gate of the Unit	Photo 2: Bar screen at ETP inlet
	
Photo 3: ETP equalization tank	Photo 4: Calrifloculator
	
Photo 5: Aeration tank 1	Photo 6: Primary clarifier

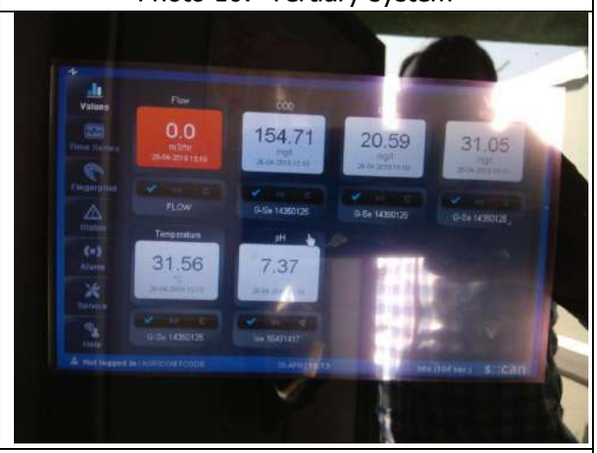
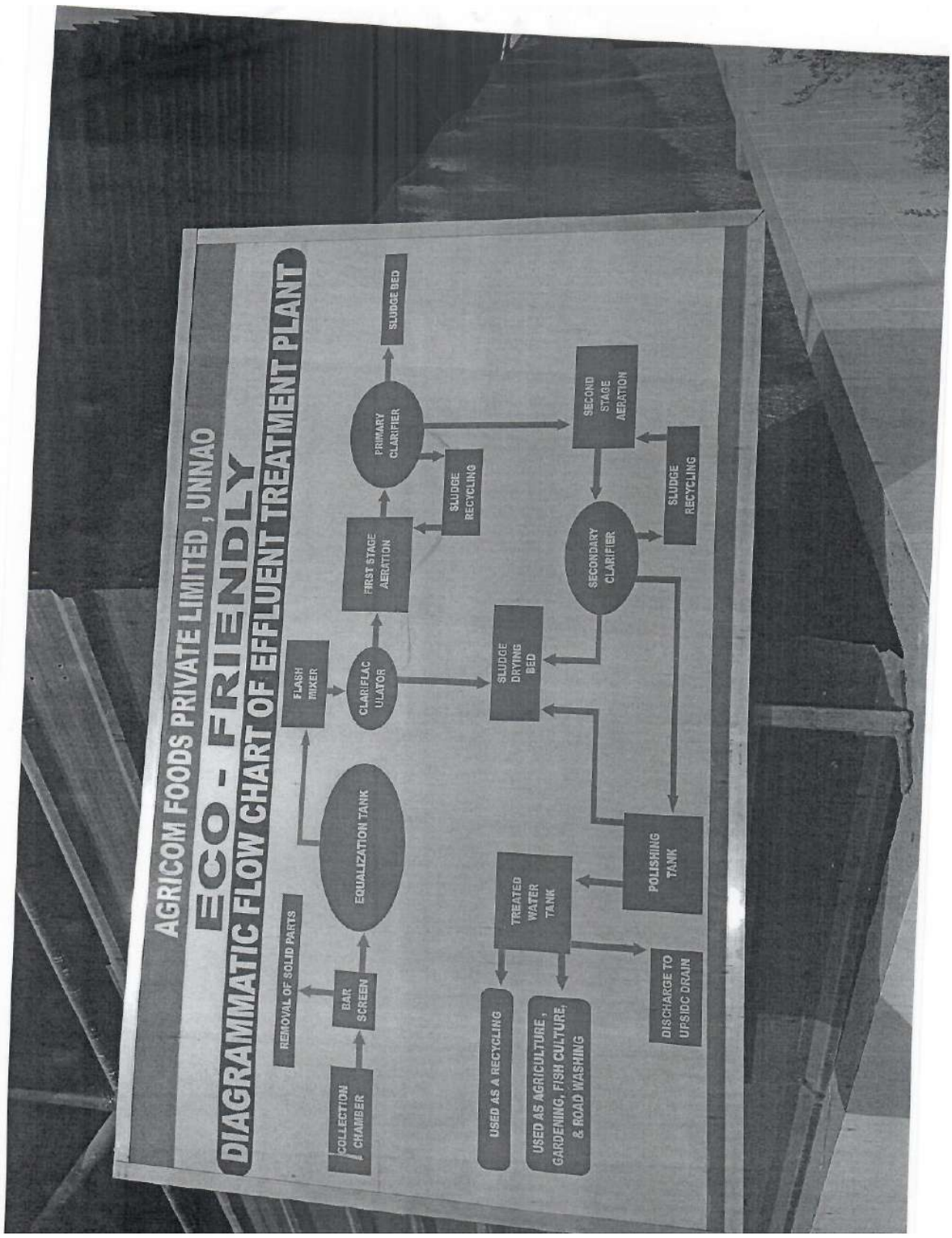
	
Photo 7: Secondary clarifier	Photo 8: Polishing tank
	
Photo 9: Filter feed tank	Photo 10: Tertiary system
	
Photo 11: Final outlet point	Photo 12: OCEMS display

	
Photo 13: Sludge drying beds	Photo 14: Blood processing system
	
Photo 15: Ingesta processing plant	Photo 16: Boiler stack
	
Photo 17: Oultlet point in industrial drain	Photo 18: Solid separator

ANNEXURE – I: ETP FLOW DIAGRAM



	Regional Office, Unnao

Inspection Report of: **M/s Al-Super Frozen Foods Pvt. Ltd., D- 6 to D- 10, Site-II, Industrial Area, Unnao (U.P.)**

Background of Inspection: As per NGT order dated 09.04.2019 w.r.t. OA No. 387/2019 inspection of seven (07) slaughter houses in Unnao Distrcit was to be carried out by joint teams of CPCB and UPPCB. M/s Al-Super Frozen Foods Pvt. Ltd., D- 6 to D- 10, Site-II, Industrial Area, Unnao was inspected on 26.04.2019 and 01.05.2019 in reference to the above mentioned NGT order. The unit was reinspected on 01.05.2019 for the reason that on 26.04.2019 the unit was non-functional and no slaughtering activity carried out. Salient observations and recommendation based on the inspection of the unit are stated below:

A. GENERAL INFORMATION		
1.	Name & complete Address of the Unit: Latitude & Longitude	M/s Al-Super Frozen Foods Pvt. Ltd., D- 6 to D- 10, Site-II, Industrial Area, Unnao (U.P.) $26^0 33'05.9"N\ 80^0 31'42.0"E$
2.	Name of the: occupier/contact person & Contact No.	Mr. Abrar, Vice-Chairman, Mob. - 9871123578 Mr. Arvind Yadav, ETP Inchage, Mob. - 8393964285
3.	E-mail	info@alsuper.in
4.	Operation schedule	8 to 10 hours / day
5.	Status of the UNIT (Operational/Non-Operational)	On 26.04.2019: No slaughtering activity however ETP operational On 01.05.2019: Slaughtering process on and ETP operational
6.	Consent Status:	Under Water Act - valid upto 31.12.2019 Under Air Act - valid upto 31.12.2019
7.	Product(s) and Capacity- a) As per consent:	 Slaughtering : 700 buffalo per day

8.	Approx. Distance (KM) from River Ganga / its Tributary	Approx. 146 km (through industrial/Loni drain) ETP treated effluent used in irrigation
9.	Feedback from Local residents (about pollution status of the industry inspected)	No specific comments from local people
B. WATER POLLUTION		
10.	Sources of Fresh water and Consumption (m^3/day)	Two (02) Bore wells Consumption – 641 to 642 m^3/day (as per logbook record of 01.04.2019 to 24.04.2019) Consented consumption - 720 m^3/day (as per CGWA NOC)
11.	If having bore well, whether permission from CGWA or not	CGWA NOC valid till 27.06.2019
12.	Availability of Flow: measuring devices	Flow meter installed at both borewells – Reading during visit: Borewell I - 59508 m^3 Borewell I - 56007 m^3 At ETP - Flow meter installed at inlet and outlet Reading during visit: Inlet flow meter – Non-functional Outlet flow meter – 33234 m^3
13.	Waste Water Generation:(m^3/day)(Before ETP)	700 KLD (as per UPPCB consent) 315 KLD (as per ETP logbook record of April 2019) (Quantity of treated effluent discharged)
14.	**ETP details:** i. Design capacity- ii. Names of all treatment units in sequence. iii. Sludge dewatering system	 900 KLD Flow diagram attached – ***Annexure - I*** Sludge volute machine
15.	Status of ETP	ETP was operational
16.	Whether any **By-pass / multiple Outlets** of Effluent observed	No
17.	Method and Ultimate disposal point of effluent	Reuse in process/cleaning/horticulture/irrigation

Ravinder Singh

	Dung/ingesta – Dung & ingesta processing machine ETP Sludge – Through sludge volute machine

21. **Analysis Report-** Quality of discharged effluent (for all parameters as notified under Environment (Protection) Rules, 1986

Samples were collected on 26.04.2019 and 01.05.2019 for compliance verification of the final treated effluent discharged to the industrial drain. However on 26.05.2019 no slaughtering activity was observed. Results of analysis of samples is given below –

Parameter	Sampling location						Standards
	Inlet to ETP		Aeration Tank		ETP Outlet		
	26.4.19	1.5.19	26.4.19	1.5.19	26.4.19	1.5.19	
pH	6.83	6.45	-	-	7.46	7.62	6.5 - 8.5
Colour	1000	1250	-	-	70	100	-
SS	3053	3384	-	-	28.5	26.8	50
TDS	2322	1547	-	-	806	790	-
MLSS	-	-	3698	4453	-	-	-
MLVSS	-	-	2740	3268	-	-	-
O & G	10.6	17.1	-	-	BDL	BDL	10
BOD	2480	4357	-	-	29.6	29.6	30
COD	5859	8160	-	-	72.6	68.1	250

All numerical values in the above table in mg/l except pH

Status: ***Complying***

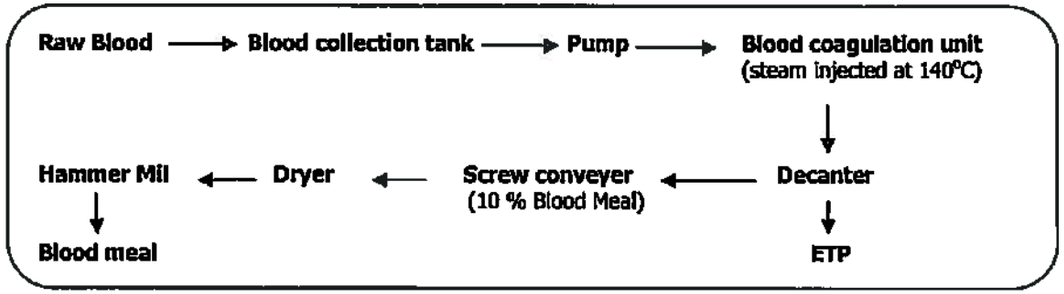
Observations

- The unit was inspected on 26.04.2019 and slaughtering activity was found non-operational. Therefore to verify the compliance status on a fully operational day another visit to the unit was made on 01.05.2109 and on that day slaughtering activity was in progress. However ETP was found operational and samples were collected on both the days.
- The unit has got valid consent to operate (CTO) under Section 25/26 of The Water (Prevention & Control of Pollution) Act, 1974 (as amended) for discharge of effluent and under Section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 (as amended) from UPPCB with validity upto 31.12.2019.

- The industry has not installed piezometers to check the water table.
- Effluent generated from all the sections of the slaughter house is directed to an ETP. The ETP comprises of - Screen → Collection Tank/Oil & Grease Removal Tank → Mechanical Rotary Separator → Equalization Tank →DAF →Buffer Tank →Anaerobic hybrid reactor → Aeration Tank → Clarifier →Collection Tank →MGF, ACF & RO→Disinfection Tank.
- The flow meter installed at the ETP inlet was non-functional and hence volume of effluent received at the ETP could not be measured. However, flow meter at the outlet was functional and average discharge of 315 KLD for the month of April was recorded from the logbook maintained by the unit.
- The sample from treated effluent discharge point was collected and analysed.
- The treated effluent sample collected on both the days (26.04.2019 and 01.05.2019) was complying with the standards dated 28.10.2016 notified by MOEF&CC under E (P) Rules, 1986.
- As per the CTO from UPPCB the unit is allowed to recycle the treated effluent and use it for irrigation. The unit has developed a Karnal Irrigation system in the premises for using the treated effluent. As per the UPPCB consent the unit is required to use the treated water for lairage washing, premises washing, gardening and apply Karnal Technology on 04 acres of land on plot no. D - 9, 10.
- However, the unit has acquired land outside its premises at Police Station, Dahi Chowki and Rajkiya Polytechnic, Dahi Chowki and treated effluent is supplied by pipeline network. The unit has been granted approval to use land outside the premises by UPPCB vide letter no. H31649/C-5/Cons. Wat.-81/19 dated 19.01.2019
- It was observed that treated effluent was logged in the area under the Karnal system at the Police Station, Dahi Chowki location. As per the principle of Karnal system, the effluent discharge is so regulated that it is consumed within 12-18 hours and there is no standing water left in the trenches.
- Water logging for longer durations may cause contamination of ground water by leaching of the treated effluents.
- The team visited the area at Rajkiya Polytechnic, Dahi Chowki and found that most of the areas acquired by the unit have old plants wherein treated effluent was used for irrigation. Also no Karnal system was visible (treated effluent was supplied on to plain land) in most of the land at Rajkiya Polytechnic, Dahi Chowki.
- The unit doesn't have any irrigation plan for using the treated effluent on the area of land in the premises or outside the premises.
- An arrangement for storing the treated effluent (in excess of requirements) in the premises

of the processing of blood in the industry is given below -

a) Fresh blood from carcass dressing line is collected in stainless steel trough and pumped to blood processing plant through a closed pipe line system.
b) Fresh blood reaching blood processing plant is retained till required quantity of blood is accumulated the blood collection tank. The first step in the process is coagulation of blood in the coagulator by injecting steam of more than 120-140^{0}C.
c) After the coagulation process, the coagulated blood is passed through the decanter for the separation of solid and liquid portions.
d) The discharge from the decanter is taken to ETP for further treatment and no discharge of blood form the process observed during inspection.
e) The solid part from the decanter is sent to the drier for the complete drying of coagulated blood at 120 ^{0}C. Once the blood is dried (moisture< 8 %), the dried blood is transported to hammer mill to screw conveyors to convert the dried blood in to the fine blood meal powder of required particle size.
f) After milling, blood meal is stored in the blood meal bin to cool down to atmospheric temperature. Blood meal from blood meal bin is filled in the bags and the bags are stored in the warehouse for the dispatch on the first in first out (FIFO) basis.
g) A flow chart of production of blood meal from blood is as follows:



The unit has provided details of

→ generation of blood from slaughtering,
→ its processing to form blood meal,
→ sale of the blood meal, and
→ the existing stock of blood meal.

➢ As per the record provided by the unit, number of animals slaughtered, blood generated, production of blood meal and sale of blood meal per day for the last two months (March to April 2019) is tabulated below:

24	**Conclusion / Recommendation** 1. The effluent produced by the Industry is treated in the ETP before used in irrigation. The treated effluent collected during Inspection was conforming to the stipulated discharge standards as notified under E (P) Rules, 1986. 2. Blood generated in the industry is collected and processed to make blood meal, which is further used to enhance the nutritive quality of poultry feed supplement (formed as dry product of rendering) and sold out. 3. The supernatant of the blood meal production process in diverted to the ETP for treatment before discharge. 4. The unit shall have periodic assessment of ground water level and maintain logbook for the same. 5. The defunct flow meter at the ETP inlet shall be repaired immediately to quantify the effluent reaching at the ETP. 6. The unit shall provide an irrigation management plan for the treated effluent form a recognised authority. 7. Application of treated effluent to the plants in Karnal Irrigation system shall be regulated so that no water logging takes place in the area and avoid ground water contamination. 8. All of the area acquired by the unit outside the premises and not having plants shall be developed in the form of Karnal irrigation system by making furrows/trenches. 9. The unit shall make arrangements for regular outflow of produced of blood meal (no sale of blood meal in March and April months) to avoid excessive stocking of the product. 10. The unit is partially utilizing the treated effluent within the process and premises. However, the unit shall explore total utilization of treated effluent within the process and other in-house activities including horticulture.

Photo gallery of M/s Al-Super Frozen Foods Pvt. Ltd., Unnao	
	
Photo 1: Main gate of the Unit	Photo 2: Animals lined up for slaughtering
	
Photo 3: Screen bar	Photo 4: Dung separator system
	
Photo 5: Equalization tank	Photo 6: DAF system

	
Photo 7: Buffer tank	Photo 8: Anaerobic hybrid reactor
	
Photo 9: Aeration zone	Photo 10: Secondary clarifier
	
Photo 11: Tertiary tretment system	Photo 12: Sludge dewatering volute machine

	
Photo 13: Dung & ingesta processing site	Photo 14: Blood coagulation unit
	
Photo 15: Blood decanter	Photo 16: Karnal irrigation land at one section of Rajkiya Polytechnich
	
Photo 17: At other sections of Rajkiya Polytechnich no Karnal system develpoed	Photo 18: Karnal irrigation land at Police station

ANNEXURE I: ETP FLOW DIAGRAM

Block Bichhiya, Unnao (U.P.)

Background of Inspection: As per NGT order dated 09.04.2019 w.r.t. OA No. 387/2019 inspection of seven (07) slaughter houses in Unnao District was to be carried out by joint teams of CPCB and UPPCB. M/s AOV Exports Pvt. Ltd., D-1, D-2 , Site-1, UPSIDC Industrial Area Block Bichhiya, Unnao (U.P.) was inspected on April 25, 2019 in reference to the above mentioned NGT order. During inspection, the industry was in operation. Salient observations and recommendations based on the inspection of the unit are stated below:

A. GENERAL INFORMATION		
1.	Name & complete Address of the Unit: Latitude & Longitude	M/s AOV Exports Pvt. Ltd., D-1, D-2 , Site-1, UPSIDC Industrial Area Block Bichhiya, Unnao $26^0 33'31.75"N$ $80^0 31'42.95"E$
2.	Name of the: occupier/contact person & Contact No.	Mr. M.S. Ansari, GM, Mob. 987104934 Mr. Zafar Ali, AGM, Mob. 8081123020
3.	E-mail	info@aovexports.com
4.	Operation schedule	10 hours/day
5.	Status of the UNIT (Operational/Non-Operational)	Operational
6.	Consent Status:	Under Water Act - valid upto 31.12.2019 Under Air Act - valid upto 31.12.2019
7.	Product (s) and Capacity- a) As per consent to operate (CTO) : b) Actual production during the inspection	Slaughtering : 750 buffalo per day Frozen meat production : 112.5 Ton/day Meat Bone Meal (MBM) Bone Tallow } Not mentioned in the CTO Blood Meal Poultry Feed Supplement (PFS): <u>For the month of April (up to visit date)</u>: Slaughtering: 451 to 452 buffalo per day Frozen meat production : 61 to 62 Ton/day

10.	Sources of Fresh water and Consumption (m^3/day)	Two Bore wells Consumption - 367 m^3/day (as per logbook record during 01.04.2019 to 24.04.2019) Consented consumption - 755 m^3/day (as per CGWA NOC)
11.	If having bore well, whether permission from CGWA or not?	CGWA NOC valid till 19.03.2020
12.	Availability of Flow: measuring devices	Flow meter installed at both borewell – Reading of borewell 1: 26690 m^3 Reading of borewell 2: 47968 m^3
13.	Waste Water Generation:(m^3/day)	715 KLD (as per UPPCB consent) 153 to 154 KLD (as per ETP logbook record of April 2019) (Average Quantity of treated effluent discharged) Totalized reading on 25.04.2019: 218018 m^3
14.	**ETP details:** i. Design capacity- ii. Names of all treatment units in sequence. iii. Sludge dewatering system	 1000 KLD Flow diagram attached – ***Annexure - I*** Sludge drying beds
15.	Status of ETP	ETP was operational
16.	Whether any **By-pass / multiple Outlets** of Effluent observed	No At the time of inspection single discharge point was observed.
17.	Method and Ultimate disposal point of effluent:	Through industrial drain outside the premises to Loni Drain
18.	OCEMS Status and Details	Installed and connected to the CPCB server URL – w.w.w.xy/omcpcb.com User Name- aov_export Password—aov33cp/#oo
19.	Method of Blood disposal	Coagulation of blood by coagulator unit → Blood Meal
20.	Mode of Solid waste disposal:	Production waste - Waste material i.e. bone, extra fat, blood, horn, hood & hide, different part of animal is processed within the premises (MBM & Tallow are produced as byproduct by rendering)

Colour	250	-	40	10	-
SS	2088	-	17.2	32.8	50
TDS	4140	-	2259	2043	-
MLSS	-	7220	-	-	--
MLVSS	-	4489	-	-	
O & G	19.3	-	-	BDL	10
BOD	1893	-	8.6	6.8	30
COD	3949	-	37.7	17.7	250

All numerical values in the above table in mg/l except pH

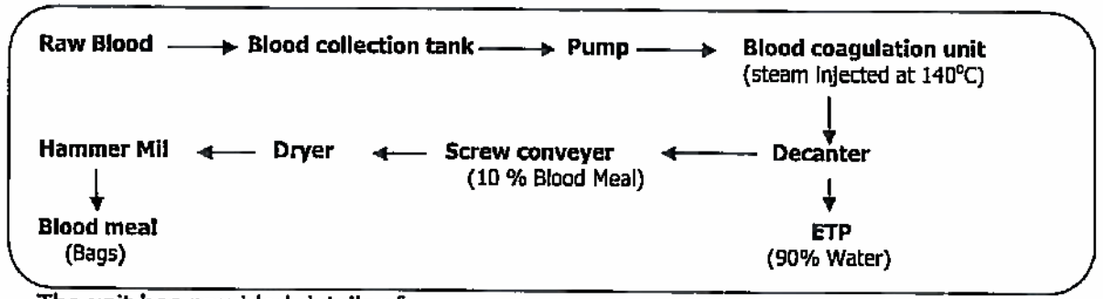
Status: ***Complying***

Observations:

- On the day of inspection the unit was found operational.
- The unit has got valid consent to operate (CTO) under Section 25/26 of The Water (Prevention & Control of Pollution) Act, 1974 (as amended) for discharge of effluent and under Section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 (as amended) from UPPCB with validity upto 31.12.2019.
- As per information shared, the unit is operating at 60 to 61 % of consented capacity (average 451 to 452 buffaloes slaughtered against consented number of 750 buffaloes in the month of April during 1st to 24th).
- As per the NOC (valid till 19.03.2020) from CGWA the industry has two (02) borewells for fresh water consumption. As per logbook record, about 367 m^3/day of fresh water is extracted by the unit against permission of 755 m^3/day by CGWA.
- Effluent generated from all the sections of the slaughter house is directed to an ETP. The ETP comprises of Bar screen, Oil & grease trap, Collection tank, Solid separator, Equalization tank, Primary settling tank, UASB, Sump tank, Aeration tank 1, Clarifier 1, Aeration tank 2, Clarifier 2, Aeration tank 3, Clarifier 3, Disinfection system, Collection pit, MGF and ACF units. Effluents with high BOD are treated by UASB before subjecting them to aeration.
- The sample from treated effluent discharge point was collected and analysed.
- The treated effluent was complying to the standards dated 28.10.2016 notified by MOEF&CC under E (P) Rules, 1986.
- The treated effluent is discharged into the industrial drain outside the premises of the unit. The industrial drain carries wastewater from several other type industries (some dry units are also present).
- The inspection team visited the industrial drain outside the premises, where the unit is

The blood generated in the slaughter house is converted to blood meal. A brief description of the processing of blood in the industry is given below -

a) Fresh blood from carcass dressing line is collected in stainless steel trough and pumped to blood processing plant through a closed pipe line system.
b) Fresh blood reaching blood processing plant is retained till required quantity of blood is accumulated the blood collection tank. The first step in the process is coagulation of blood in the coagulator by injecting steam of more than 120-140^{0}C.
c) After the coagulation process, the coagulated blood is passed through the decanter for the separation of solid and liquid portions.
d) The discharge from the decanter is taken to ETP for further treatment and no discharge of blood form the process observed during inspection.
e) The solid part from the decanter is sent to the drier for the complete drying of coagulated blood at 120 ^{0}C. Once the blood is dried (moisture< 8 %), the dried blood is transported to hammer mill to screw conveyors to convert the dried blood in to the fine blood meal powder of required particle size.
f) After milling, blood meal is stored in the blood meal bin to cool down to atmospheric temperature. Blood meal from blood meal bin is filled in the bags and the bags are stored in the warehouse for the dispatch on the first in first out (FIFO) basis.
g) A flow chart of production of blood meal from blood is as follows:



The unit has provided details of

→ generation of blood from slaughtering,
→ its processing to form products,
→ sale of the products, and
→ the existing stock of products.

➢ As per the record provided by the unit, number of animals slaughtered, blood generated, production of blood meal, use of blood meal to manufacture MBM/PFS (*MBM/PFS is a*

2.	March	267 to 409	5260 to 8180	460 to 710	390 to 690	1166
3.	April (up to 24rd)	249 to 681	4980 to 13620	435 to 1020	410 to 990	9340

* *Blood meal is added to PFS to increase the protein content*

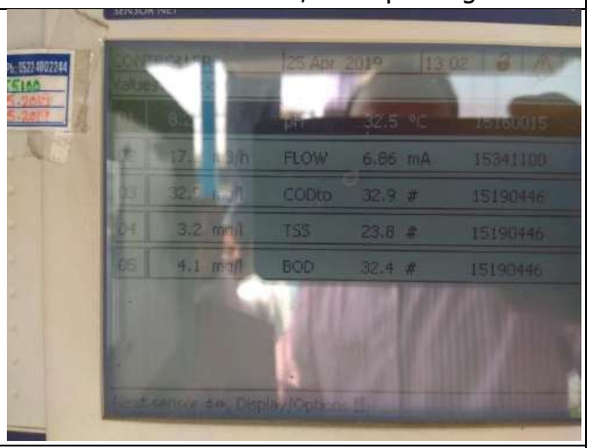
- The record of production and sale of blood meal and MB/PFS indicates that as on 24.04.2019 the industry has 2525 kg of Blood meal stock and 8800 kg of MBM/PFS stock.

24 **Conclusion / Recommendation:**

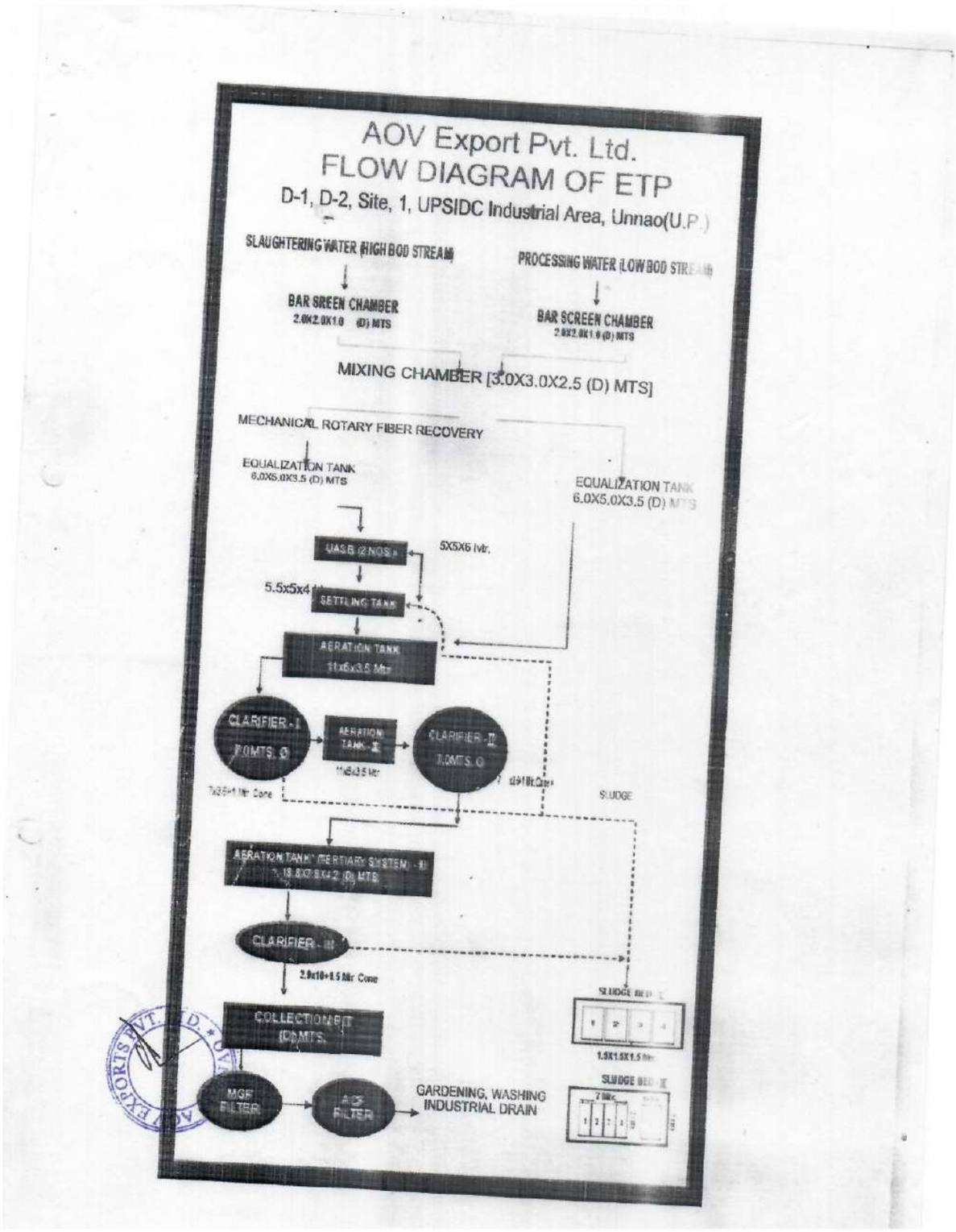
1. The effluent produced by the industry is treated in the ETP before discharge to the industrial drain. The treated effluent collected during inspection was conforming to the stipulated discharge standards as notified under E (P) Rules, 1986.
2. Blood generated in the industry is collected and processed to make blood meal, which is further used to enhance the nutritive quality of poultry feed supplement (formed as dry product of rendering) and sold out.
3. The supernatant of the blood meal production process in diverted to the ETP for treatment before discharge.
4. The Inspection team visited the industrial drain outside the premises, where the unit is discharging its treated effluent, and no visible deviation in the drain was observed. Also, no visible traces of blood were observed in the drain.
5. The unit shall have periodic assessment of ground water level and maintain logbook for the same.
6. The unit is partially utilizing the treated effluent within the process and premises. However, the unit shall explore total utilization of treated effluent within the process and other in-house activities including horticulture.

Photo gallery of M/s AOV Exports Pvt. Ltd., Unnao	
	
Photo 1: Main gate of the Unit	Photo 2: Lairage area
	
Photo 3: Collection tank	Photo 4: Solid separator
	
Photo 5: UASB reactor	Photo 6: Settling tank

	
Photo 7: Aeration tank	Photo 8: Clarifier 1
	
Photo 9: Final settling tank	Photo 10: Tertiary treatment
	
Photo 11: Treated effluent storage tank	Photo 12: Treated effluent discharge point

	
Photo 13: Treated effluent recipient drain outside the unit	Photo 14: Aeration tanks and clarifiers in series
	
Photo 15: Blood coagulation unit	Photo 16: Blood meal / MBM packing area
	
Photo 17: Undigested dung dewatering machine	Photo 18: OCEMS display monitor

ANNEXURE – I: ETP FLOW DIAGRAM



Bicchiya, Unnao (U.P.)

Background of Inspection: As per NGT order dated 09.04.2019 w.r.t. OA No. 387/2019 inspection of seven (07) slaughter houses in Unnao District was to be carried out by joint teams of CPCB and UPPCB. M/s Indagro Foods Pvt. Ltd., Site II, UPSIDC Industrial Area, Block Bichhiya, Unnao (U.P.) was inspected on April 25, 2019 in reference to the above mentioned NGT order. During inspection, the industry was in operation. Salient observations and recommendations based on the inspection of the unit are stated below:

A. GENERAL INFORMATION		
1.	Name & complete Address of the Unit: Latitude & Longitude	M/s Indagro Foods Pvt. Ltd. Site II, UPSIDC Industrial Area Bichhiya, Unnao (U.P.) $26^0 33'48.38"N$ $80^0 31'0.60"E$
2.	Name of the: occupier/contact person & Contact No.	Dr. Appar, GM, Mob. 7032636945 Mr. Neeraj Trivedi, Manager Corp. Rel., Mob. 7571998800
3.	E-mail	iflunnao@alana.com Fax no. 05152829918
4.	Operation schedule	10 hours/day
5.	Status of the UNIT (Operational/Non-Operational)	Operational
6.	Consent Status:	Under Water Act - valid upto 31.12.2019 Under Air Act - valid upto 31.12.2019
7.	Product (s) and Capacity- a) As per consent to operate (CTO) : b) Actual production during the	Slaughtering : 2000 buffalo per day *1500 sheep/goat per day* Frozen meat production : 280 Ton/day *60 Ton/day* Meat Bone Meal (MBM) Bone Tallow } Not mentioned in the CTO Blood Meal <u>For the month of April (up to visit date)</u>: Slaughtering : 908 - 909 buffalo per day

	Consumption (m^3/day)	Five (05) bore wells Consumption - 830 m^3/day (as informed) (Logbook record indicates > 900 m^3/day 22nd and 24th April) Consented consumption - 900 m^3/day (as per CGWA NOC)
11.	If having bore well, whether permission from CGWA or not?	CGWA NOC valid till 08.05.2019
12.	Availability of Flow: measuring devices	Flow meter installed at all the borewells
13.	Waste Water Generation:(m^3/day)	1400 KLD (as per UPPCB consent) Flow meters installed at two places – two points of inlet of two parallel sets of ETP of 700 KLD each 760 to 770 KLD (as per ETP logbook record of both set of inlets of April 2019) (Average Quantity of treated effluent discharged) Totalized reading on 25.04.2019: Flow meter 1 - 411811 m^3 Flow meter 2 - 419328 m^3
14.	**ETP details:** i. Design capacity- ii. Names of all treatment units in sequence. iii. Sludge dewatering system	 1400 KLD Flow diagram attached – ***Annexure - I*** Sludge filter beds
15.	Status of ETP	ETP was operational
16.	Whether any **By-pass / multiple Outlets** of Effluent observed	No At the time of inspection single discharge point was observed.
17.	Method and Ultimate disposal point of effluent:	Through industrial drain outside the premises to Loni Drain
18.	OCEMS Status and Details	Installed and connected to the CPCB server URL - http://115.114.10.246:8080/enviroconnect User Name- IFL Password—IFL
19.	Method of Blood disposal	Coagulation of blood by coagulator unit → Blood Meal

		Tank 1	Tank 2		
pH	6.67	-	-	6.74	6.5 - 8.5
Colour	500	-	-	15	-
SS	2639	-	-	31.5	50
TDS	2252	-	-	2092	-
MLSS	-	1325	3175	-	--
MLVSS	-	1156	2643	-	
O & G	6.4	-	-	BDL	10
BOD	3500	-	-	29.5	30
COD	5983	-	-	91	250

All numerical values in the above table in mg/l except pH

Status: ***Complying***

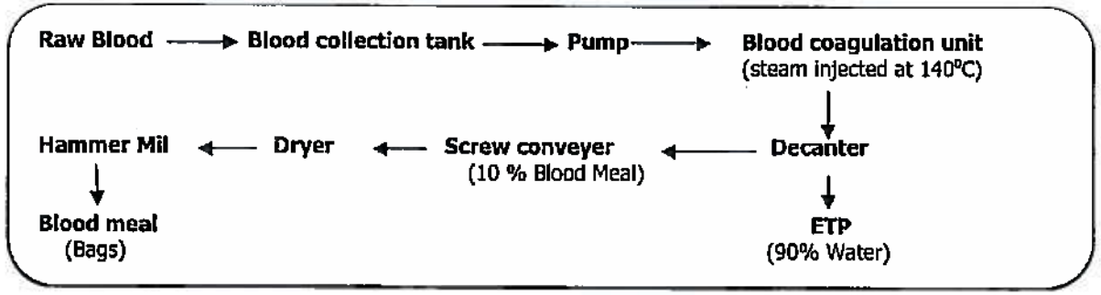
Observations

- On the day of inspection the unit was found operational.
- The unit has got valid consent to operate (CTO) under Section 25/26 of The Water (Prevention & Control of Pollution) Act, 1974 (as amended) for discharge of effluent and under Section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 (as amended) from UPPCB with validity upto 31.12.2019.
- As per information shared, the unit is operating at 45 to 46 % of consented capacity (average 908 to 909 buffaloes slaughtered against consented number of 2000 buffaloes in the month of April during 1st to 24th).
- As per the NOC (valid till 08.05.2019) from CGWA the industry has five (05) borewells for fresh water consumption. As per logbook record, about 760 to 770 m^3/day of fresh water is extracted by the unit against permission of 900 m^3/day by CGWA.
- Effluent generated from all the sections of the slaughter house is directed to an ETP. The ETP comprises of Bar screens, Collection tank, Solid separator, Oil & grease traps, Equalization Tank, Flocculator, Primary Clarifier, Aeration 1, Clarifier 1, Aeration 2, Clarifier 2, Flash mixer, Final Clarifier, Collection Tank.
- The unit does not have tertiary system (media filters) for treatment of effluent.
- The sample from treated effluent discharge point was collected and analysed.
- The treated effluent was complying with the standards dated 28.10.2016 notified by MOEF&CC under E (P) Rules, 1986.
- The treated effluent is discharged into the industrial drain outside the premises of the unit. The industrial drain carries wastewater from several other type industries.

- The Unit has four boilers of capacity 12 TPH, 8 TPH, 6 TPH and 2 TPH. Unit uses dried ingesta and husk as a fuel in the boiler.
- **Management of Blood in the slaughter house:**

The blood generated in the slaughter house is converted to blood meal. A brief description of the processing of blood in the industry is given below -

a) Fresh blood from carcass dressing line is collected in stainless steel trough and pumped to blood processing plant through a closed pipe line system.
b) Fresh blood reaching blood processing plant is retained till required quantity of blood is accumulated the blood collection tank. The first step in the process is coagulation of blood in the coagulator by injecting steam of more than 120-140^{0}C.
c) After the coagulation process, the coagulated blood is passed through the decanter for the separation of solid and liquid portions.
d) The discharge from the decanter is taken to ETP for further treatment and no discharge of blood form the process observed during Inspection.
e) The solid part from the decanter is sent to the drier for the complete drying of coagulated blood at 120 ^{0}C. Once the blood is dried (moisture< 8 %), the dried blood is transported to hammer mill to screw conveyors to convert the dried blood in to the fine blood meal powder of required particle size.
f) After milling, blood meal is stored in the blood meal bin to cool down to atmospheric temperature. Blood meal from blood meal bin is filled in the bags and the bags are stored in the warehouse for the dispatch on the first in first out (FIFO) basis.
g) A flow chart of production of blood meal from blood is as follows:



The unit has provided details of

→ generation of blood from slaughtering,
→ Its processing to form products,

	April (up to 24rd)				25 Ton

The record of production and sale of blood meal indicates that as on 24.04.2019 the industry has 41.4 Ton of Blood meal stock.

24 **Conclusion / Recommendations:**

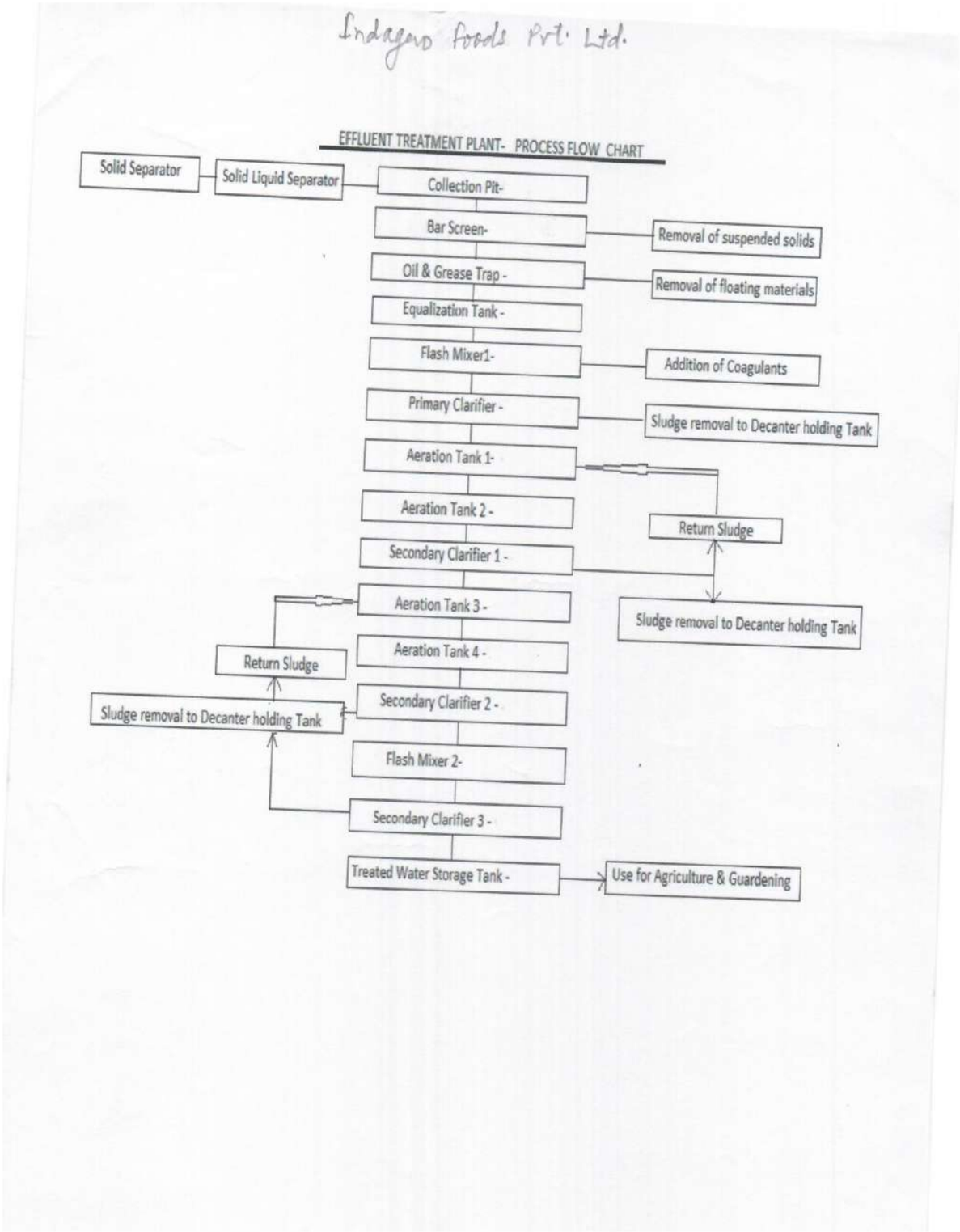
1. The effluent produced by the industry is treated in the ETP before discharge to the industrial drain. The treated effluent collected during inspection was conforming to the stipulated discharge standards as notified under E (P) Rules, 1986.
2. Blood generated in the industry is collected and processed to make blood meal, which is further used to enhance the nutritive quality of poultry feed supplement (formed as dry product of rendering) and sold out.
3. The supernatant of the blood meal production process in diverted to the ETP for treatment before discharge.
4. The inspection team visited the industrial drain outside the premises, where the unit is discharging its treated effluent, and no visible deviation in the drain was observed. Also, no visible traces of blood were observed in the drain.
5. The unit shall install a tertiary system to augment the existing effluent treatment system.
6. The unit shall have periodic assessment of ground water level and maintain logbook for the same.
7. The unit is partially utilizing the treated effluent within the process and premises. However, the unit shall explore total utilization of treated effluent within the process and other in-house activities including horticulture.

			Mr. Shiv Balak, SA	

Photo gallery of M/s Indagro Foods Pvt. Ltd., Unnao	
	
Photo 1: Main gate of the Unit	Photo 2: Lairage area
	
Photo 3: ETP In Inlet	Photo 4: Solid separator
	
Photo 5: Flash mixer	Photo 6: Primary clarifier

	
Photo 7: Aeration tank	Photo 8: Treated water storage tank
	
Photo 9: OCEMS display	Photo 10: Drain carrying treated effluent from unit
	
Photo 11: Industrial drain outside the unit	Photo 12: Blood processing plant

ANNEXURE – I: ETP FLOW DIAGRAM



Inspection Report of: **M/s Mash Agro Foods Ltd., Village-Bichpari, Tehsil-Hasanganj, Pargana-Ajgain, Block Nawabganj, Distrct. Unnao (U.P.)**

Background of Inspection: As per NGT order dated 09.04.2019 w.r.t. OA No. 387/2019 inspection of seven (07) slaughter houses in Unnao Distrcit was to be carried out by joint teams of CPCB and UPPCB. M/s Mash Agro Foods Ltd., Village-Bichpari, Tehsil-Hasanganj, Pargana-Ajgain, Block-Nawabganj, District-Unnao was inspected on April 25, 2019 in reference to the above mentioned NGT order. During inspection, the industry was in operation. Sallent observations and recommendation based on the inspection of the unit are stated below:

A. GENERAL INFORMATION

1.	Name & complete Address of the Unit: Latitude & Longitude	M/s Mash Agro Foods Ltd. Village-Bichpari, Tehsil-Hasanganj, Pargana-Ajgain, Block-Nawabganj, District-Unnao $26^0 35'30.38"N$; $80^0 34'42.88"E$
2.	Name of the: occupier/contact person & Contact No.	Mr Mujahid Aslam, Mr. Ranjit Mishra, Manager, Mob. - 9838437999
3.	E-mail	mashgroup@gmail.com, info@mashagrofoods.com
4.	Operation schedule	10 hours / day (average)
5.	Status of the UNIT (Operational/Non-Operational)	Operational
6.	Consent Status:	Under Water Act - valid upto 31.12.2019 Under Air Act - valid upto 31.12.2019
7.	Product(s) and Capacity- a) As per consent:	Slaughtering : 300 buffalo per day Frozen meat production : 45 Ton/day

		PFS : 13 - 14 Ton/day Tailow : 4 - 5 Ton/day
8.	Approx. Distance (KM) from River Ganga / its Tributary	Out of catchment area of River Ganga
9.	Feedback from Local residents (about pollution status of the industry Inspected)	No specific comments from local people
B. WATER POLLUTION		
10.	Sources of Fresh water and Consumption (m^3/day)	One Bore well Consumption - 230 m^3/day (as per logbook record) Consented consumption - 310 m^3/day (as per CGWA NOC)
11.	If having bore well, whether permission from CGWA or not	CGWA NOC valid till 31.07.2019
12.	Availability of Flow: measuring devices	At Tube well - Flow meter installed (Reading during visit: 885632.29 m^3) At ETP outlet - Flow meter installed at outlet (Reading during visit: 296720 m^3)
13.	Waste Water Generation:(m^3/day)(Before ETP)	275 KLD (as per UPPCB consent) 220 to 225 KLD (as per ETP logbook record of April 2019) (Quantity of treated effluent discharged)
14.	**ETP details:** i. Design capacity- ii. Names of all treatment units in sequence. iii. Sludge dewatering system	500 KLD Flow diagram attached – ***Annexure - I*** Sludge drying beds
15.	Status of ETP	ETP was operational
16.	Whether any **By-pass / multiple Outlets** of Effluent observed	No
17.	Method and Ultimate disposal point of effluent	Reuse in process/cleaning/horticulture/irrigation

	Dung – Dried in Dung Drying Machine (used as boiler fuel). Also, stored in compost pits. ETP Sludge – Through sludge drying beds

21. **Analysis Report-** Quality of discharged effluent (for all parameters as notified under Environment (Protection) Rules, 1986

Parameter	Sampling location				Standards
	Inlet to ETP	Aeration Tank	Outlet of ETP	Irrigation field water	
pH	6.73	-	7.5	7.59	6.5 - 8.5
Colour	450	-	60	150	-
SS	2511	-	48.6	22.5	50
TDS	4707	-	2023	2914	-
MLSS	-	2297	-	-	--
MLVSS	-	2082	-	-	
O & G	13.3	-	BDL		10
BOD	2120	-	28.3	25	30
COD	3579	-	78.4	68	250

All numerical values in the above table in mg/l except pH

Status: ***Complying***

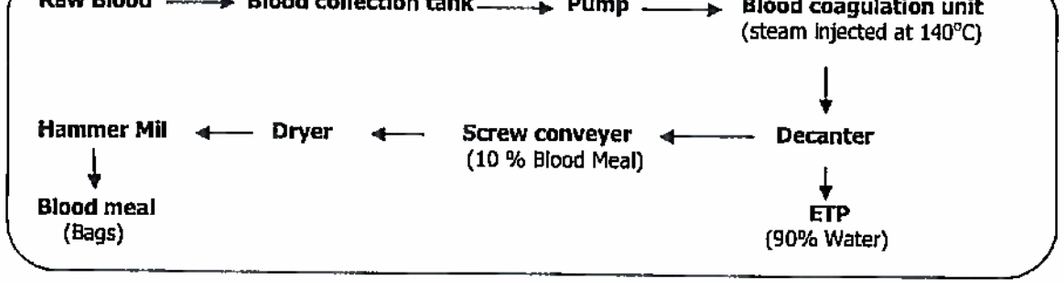
Observations

- On the day of inspection the unit was found operational.
- The unit has got valid consent to operate (CTO) under Section 25/26 of The Water (Prevention & Control of Pollution) Act, 1974 (as amended) for discharge of effluent and under Section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 (as amended) from UPPCB with validity upto 31.12.2019.
- As per information shared, the unit is operating at almost 100% of consented capacity (average 296-297 buffaloes slaughtered against consented number of 300 buffaloes in the month of April during 1st to 24th).
- The unit has one borewell as per the NOC (valid till 31.07.2019) from CGWA. As per logbook record, about 230 m^3/day of fresh water is extracted by the unit against permission of 310 m^3/day by CGWA.
- The Industry has not installed piezometers to check the water table.
- Effluent generated from all the sections of the slaughter house is directed to an ETP. The ETP consist of collection tank, solid separator, equalization tank, flash mixer, primary settling tank,

- As per the CTO from UPPCB the unit is allowed to recycle the treated effluent and use it for irrigation. The unit has developed a Karnal irrigation system outside the premises for using the treated effluent.
- As per the CTO from UPPCB the unit shall ensure to maintain ZLD i.e. no water should be discharged outside from the premises. Piped network is used for transporting the treated effluent to the acquired fields.
- It was observed that treated effluent was logged in the area under the Karnal system in the premises of the unit. As per the principle of Karnal system, the effluent discharge is so regulated that it is consumed within 12-18 hours and there is no standing water left in the trenches.
- In command area a small kachcha lagoon filled treated effluent was found just adjacent to the Karnal irrigation system. It was informed that the unit is planning to develop Karnal irrigation system on the land.
- Water logging for longer durations may cause contamination of ground water by leaching of the treated effluents.
- The unit doesn't have any irrigation plan for using the treated effluent on the area of land in the premises or outside the premises.
- The unit has provided sludge drying beds for management of sludge. The sludge is dried and sold out to farmers; however no record of sale shared with the visiting team.
- As informed, the dung is dried in Dung Drying Machine and used as a fuel in boiler. Arrangements for composting the dung are also available.
- The unit has one boiler of 3 tons a with 100 feet stack attached to it.
- **Management of Blood in the slaughter house:**

  The blood generated in the slaughter house is converted to blood meal. A brief description of the processing of blood in the industry is given below -

  a) Fresh blood from carcass dressing line is collected in stainless steel trough and pumped to blood processing plant through a closed pipe line system.
  b) Fresh blood reaching blood processing plant is retained till required quantity of blood is accumulated the blood collection tank. The first step in the process is coagulation of blood in the coagulator by injecting steam of more than 120-140^{0}C.
  c) After the coagulation process, the coagulated blood is passed through the decanter for the separation of solid and liquid portions.
  d) The discharge from the decanter is taken to ETP for further treatment and no discharge of blood form the process observed during inspection.
  e) The solid part from the decanter is sent to the drier for the complete drying of coagulated



The unit has provided details of

→ generation of blood from slaughtering,
→ its processing to form products,
→ sale of the products, and
→ the existing stock of products.

- As per the record provided by the unit, number of animals slaughtered, blood generated, production of blood meal, use of blood meal to manufacture MBM/PFS (*MBM/PFS is a product formed by dry product of rendering mixed with appropriate portion of blood meal – blood meal is added to increase the protein content of MBM/PFS*) and sale of MBM/PFS per day for the last three months (February to April 2019) is tabulated below:

Sl. No.	Month	No. of animals slaughtered	Blood generation (kg/day)	Blood meal produced (kg/day)	PFS* Manufacturing (Av. kg/day)	Sale of MBM/PFS (Av. kg/day)
1.	February	290 to 299	3714 to 4467	531 to 655	13141	13200
2.	March	294 to 299	3729 to 4464	521 to 680	13184	8710
3.	April (up to 23rd)	291 to 299	3628 to 4485	523 to 669	13585	26199

* *Blood meal is added to PFS to increase the protein content*

The record of production and sale of blood meal and MBM/PFS indicates that as on 24.04.2019 the industry has 552 kg of Blood meal stock and 494 Ton of MBM/PFS stock.

before discharge.

4. The unit shall have periodic assessment of ground water level and maintain logbook for the same.
5. Operation and maintenance of the ETP shall be supervised by an expert and an Environmental Manager/Officer shall be appointed to ensure environmental compliance.
6. The unit shall provide an irrigation management plan for the treated effluent form a recognized organization.
7. Some structure of the ETP units, especially the pathway around the aeration tanks, shall be repaired to facilitate easy access to all parts of treatment system.
8. Application of treated effluent to the plants in Karnal irrigation system shall be regulated so that no water logging takes place in the area and avoid ground water contamination.
9. The small kachcha lagoon adjacent to the own horticultural land of unit filled with treated effluent shall be filled with soil and plantation may be carried out on the filled surface.
10. The unit is partially utilizing the treated effluent within the process and premises. However, the unit shall explore total utilization of treated effluent within the process and other in-house activities including horticulture.

25 **Inspecting Officials from CPCB and UPPCB**

CPCB, RD (N), Lucknow		**UPPCB, RO, Unnao**	
Dr. Sarvesh Rai, Sci. 'C'		Mr. Vikas Mishra, AEE	
Mr. Ravinder Singh, SRF		Mr. Rajendra Prasad, AEE	

Photo gallery of M/s Mash Agro Foods Ltd., Unnao	
	
Photo 1: Lairage area	Photo 2: Collection tank
	
Photo 3: Equalization tank	Photo 4: Rotary screen
	
Photo 5: Clarifier	Photo 6: Aeration tank

	
Photo 7: Final outlet	Photo 8: OCEMS
	
Photo 9: Decanter	Photo 10: Sludge drying bed
	
Photo 11: Kaccha lagoon in commnad area	Photo 12: Piped supply of treated effluent to irrigation area


Photo 13 & 14: Karnal irrigation area with treated effluent logged in furrows

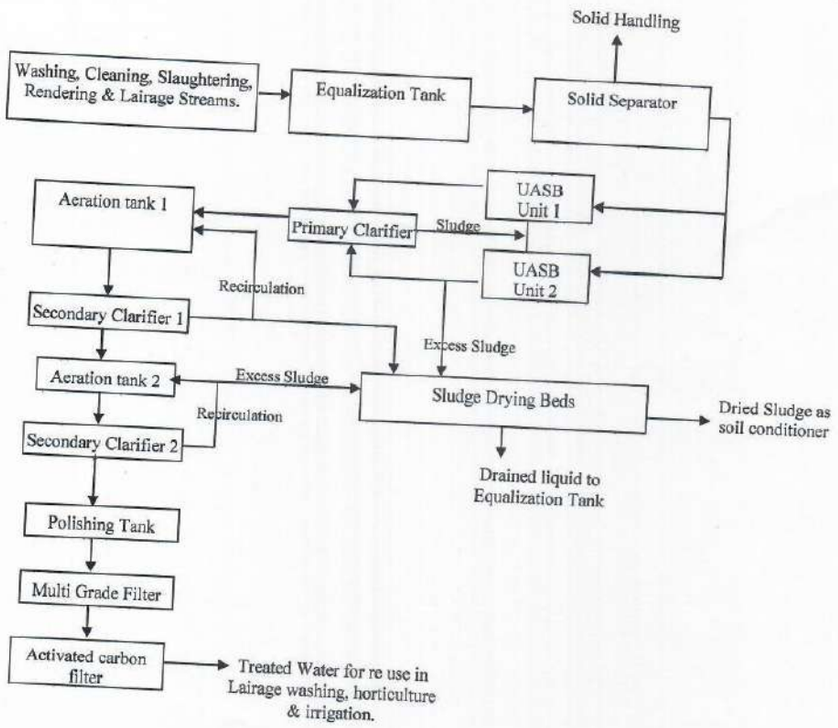

Photo 15 & 16: Blood coagulation and blood meal production area


Photo 17 & 18: Blood meal in powder form and packed in bags

ANNEXURE I: ETP FLOW DIGRAM

MASH AGRO FOODS LTD.

Lay out of Effluent Treatment Plant of Mash Agro Foods Ltd.



Issue : 01 Rev :08 Dt. 22.04.2017 | Prepared by HACCP Team Leader | Approved by Document Controller | P- 2 of 3

Regional Directorate (North), Lucknow	BOARD Regional Office, Unnao

Inspection Report of: **M/s Rustam Foods Pvt. Ltd., E-27, 28, 10, 9/1, 9/2, F-17 & 5362, Site-1, UPSIDC Industrial Area, Unnao (U.P.)**

Background of Inspection: As per NGT order dated 09.04.2019 w.r.t. OA No. 387/2019 inspection of seven (07) slaughter houses in Unnao DistriCt was to be carried out by joint teams of CPCB and UPPCB. M/s Standard Frozen Foods Exports Pvt. Ltd., Vill. – Chandpur, Near Plot No. E-20, Industrial Area, Site – I, Distt. - Unnao was inspected on April 24, 2019 in reference to the above mentioned NGT order. During inspection, the industry was in operation. Salient observations and recommendations based on the inspection of the unit are stated below:

A. GENERAL INFORMATION

1.	Name & complete Address of the Unit: Latitude & Longitude	M/s Rustam Foods Pvt. Ltd., E-27, 28, 10, 9/1, 9/2, F-17 & 5362, Site-1, UPSIDC Industrial Area, Unnao (U.P.) $26^0 33'15.382"N$ $80^0 31'43.331"E$
2.	Name of the: occupier/contact person & Contact No.	Mohd. Salim Qureshi, Mob. - 8127703106 Mr. Tanveer, DGM Administration, Mob. - 9793559998
3.	E-mail	rustamfoods@rustamfoods.net
4.	Operation schedule	Two shifts of 8 hours / day
5.	Status of the UNIT (Operational/Non-Operational)	Operational
6.	Consent Status:	Under Water Act - valid upto 31.12.2019 Under Air Act - valid upto 31.12.2019
7.	Product (s) and Capacity- a) As per consent to operate (CTO) : b) Actual production during the inspection	Slaughtering : 800 buffalo per day Frozen meat production : 120 Ton/day Meat Bone Meal (MBM) : Bone Tallow : Not mentioned in the CTO Blood Meal : Poultry Feed Supplement (PFS) For the month of April (up to visit date): Slaughtering: 755 to 756 buffalo per day

	Consumption (m^3/day)	Two Bore wells Consumption – 588 m^3/day (as per logbook record during 01.04.2019 to 23.04.2019) Consented consumption - 1176 m^3/day (as per CGWA NOC)
11.	If having bore well, whether permission from CGWA or not?	CGWA NOC valid till 26.06.2019
12.	Availability of Flow: measuring devices	Flow meter installed at both borewell – Reading of borewell 1: 470674.53 m^3 Reading of borewell 2: 6885.957 m^3
13.	Waste Water Generation:(m^3/day)	952 KLD (as per UPPCB consent) 311 to 436 KLD (as per ETP logbook record of April 2019) (Quantity of treated effluent discharged) Totalized reading on 24.04.2019: 52355 m^3
14.	**ETP details:** i. Design capacity- ii. Names of all treatment units in sequence. iii. Sludge dewatering system	 1200 KLD Flow diagram attached – ***Annexure - I*** Sludge drying beds
15.	Status of ETP	ETP was operational
16.	Whether any **By-pass / multiple Outlets** of Effluent observed	No
17.	Method and Ultimate disposal point of effluent:	Through industrial drain outside the premises to Loni Drain
18.	OCEMS Status and Details	Installed and connected to the CPCB server URL: 122.15.209.75.50020/webdata User Id: rustom Password: Rustom_Foods
19.	Method of Blood disposal	Coagulation of blood by coagulator unit → Blood Meal
20.	Mode of Solid waste disposal:	Production waste - Waste material i.e. bone, extra fat, blood, horn, hood & hide, different part of animal is processed within the premises (MBM & Tallow are produced as byproduct) Dung – Stored in compost beds & used as manure

MLSS	-	3254	-	
O & G	12.7	-	BDL	10
BOD	3370	-	18.9	30
COD	4976	-	41	250

All numerical values in the above table in mg/l except pH

Status: ***Complying***

Observations:

- On the day of inspection the unit was found operational.
- The unit has got valid consent to operate (CTO) under Section 25/26 of The Water (Prevention & Control of Pollution) Act, 1974 (as amended) for discharge of effluent and under Section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 (as amended) from UPPCB with validity upto 31.12.2019.
- As per information shared, the unit is operating at 94 to 95 % of consented capacity (average 755 to 756 buffaloes slaughtered against consented number of 800 buffaloes in the month of April during 1st to 24th).
- As per the NOC (valid till 26.06.2019) from CGWA the industry has two (02) borewells for fresh water consumption. As per logbook record, about 588 m^3/day of fresh water is extracted by the unit against permission of 1176 m^3/day by CGWA. The industry has installed piezometer as per the NOC from CGWA.
- Effluent generated from all the sections of the slaughter house is directed to an ETP. The ETP consist of Bar careen, equalization tank, solid separator, DAF, oil & grease trap/skimmer, primary settling tank, UASB, sump tank, aeration tank 1, clarifier 1, aeration tank 2, clarifier 2, aeration tank 3, clarifier 3, filter feed tank, MGF and ACF units. Effluents with high BOD are treated by UASB before subjecting them to aeration.
- The sample from treated effluent discharge point was collected and analysed.
- The treated effluent was complying with the standards dated 28.10.2016 notified by MOEF&CC under E (P) Rules, 1986.
- The treated effluent is discharged into the industrial drain outside the premises of the unit. The industrial drain carries wastewater from several other type industries (some dry units are also present).
- The Inspection team visited the industrial drain outside the premises, where the unit is discharging its treated effluent, and no visible deviation in the drain was observed. Also, no visible traces of blood were observed in the drain.
- An arrangement for storing the treated effluent (in excess of requirements) in the premises

to blood processing plant through a closed pipe line system.

b) Fresh blood reaching blood processing plant is retained till required quantity of blood is accumulated the blood collection tank. The first step in the process is coagulation of blood in the coagulator by injecting steam of more than 120-140^{0}C.

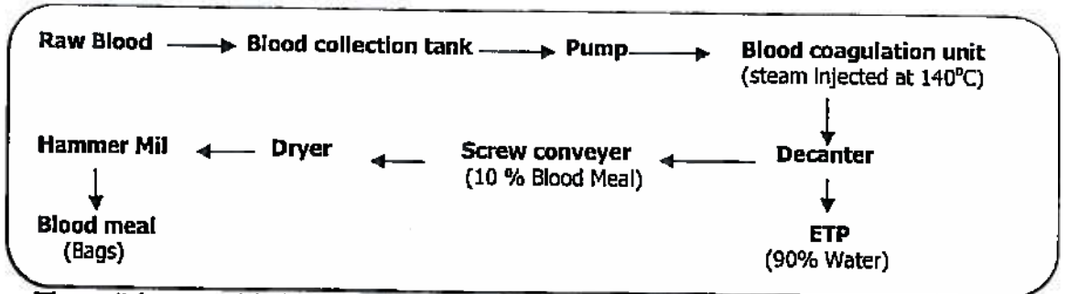
c) After the coagulation process, the coagulated blood is passed through the decanter for the separation of solid and liquid portions.

d) The discharge from the decanter is taken to ETP for further treatment and no discharge of blood form the process observed during inspection.

e) The solid part from the decanter is sent to the drier for the complete drying of coagulated blood at 120 ^{0}C. Once the blood is dried (moisture< 8 %), the dried blood is transported to hammer mill to screw conveyors to convert the dried blood in to the fine blood meal powder of required particle size.

f) After milling, blood meal is stored in the blood meal bin to cool down to atmospheric temperature. Blood meal from blood meal bin is filled in the bags and the bags are stored in the warehouse for the dispatch on the first in first out (FIFO) basis.

g) A flow chart of production of blood meal from blood is as follows:



The unit has provided details of

→ generation of blood from slaughtering,
→ its processing to form products,
→ sale of the products, and
→ the existing stock of products.

➢ As per the record provided by the unit, number of animals slaughtered, blood generated, production of blood meal, use of blood meal to manufacture MBM/PFS (*MBM/PFS is a product formed by dry product of rendering mixed with appropriate portion of blood meal – blood meal is added to increase the protein content of MBM/PFS*) and sale of MBM/PFS per day for the last three months (February to April 2019) is tabulated below:

	to 23rd)		15500	1600		

* Blood meal is added to PFS to increase the protein content

- The record of production and sale of blood meal and MB/PFS indicates that as on 23.04.2019 the industry has 9500 kg of Blood meal stock and 1900 kg of MBM/PFS stock.

24 **Conclusion / Recommendation:**

1. The effluent produced by the industry is treated in the ETP before discharge to the industrial drain. The treated effluent collected during inspection was conforming to the stipulated discharge standards notified under E (P) Rules, 1986.
2. Blood generated in the industry is collected and processed to make blood meal, which is further used to enhance the nutritive quality of poultry feed supplement (formed as dry product of rendering) and sold out.
3. The supernatant of the blood meal production process in diverted to the ETP for treatment before discharge.
4. The inspection team visited the industrial drain outside the premises, where the unit is discharging its treated effluent, and no visible deviation in the drain was observed. Also, no visible traces of blood were observed in the drain.
5. The industry shall established a Bio-Mass Briquettes Plant to process the solid waste (dung/ingesta) arising from the animals during handling, slaughtering and processing of slaughtered animals.
6. The unit shall have periodic assessment of ground water level and maintain logbook for the same.
7. The unit is partially utilizing the treated effluent within the process and premises. However, the unit shall explore total utilization of treated effluent within the process and other in-house activities including horticulture.

			Mr. Rajendra Prasad, AEE	

Photo gallery of M/s M/s Rustam Foods Pvt. Ltd., Unnao	
	
Photo 1: Main gate of the Unit	Photo 2: Lairage area
	
Photo 3: ETP area	Photo 4: Bar screen
	
Photo 5: Equalisation tank	Photo 6: Oil & grease trap

	
Photo 7: Solid separator	Photo 8: Clarifier 1
	
Photo 9: Aeration zone	Photo 10: Tertiary treatment
	
Photo 11: Treated effluent discharge point	Photo 12: Treated effluent storage tank

Photo 13: Sludge drying beds

Photo 14: Copmpost bed

Photo 15: Blood coagulation unit

Photo 16: Blood meal / MBM packing area

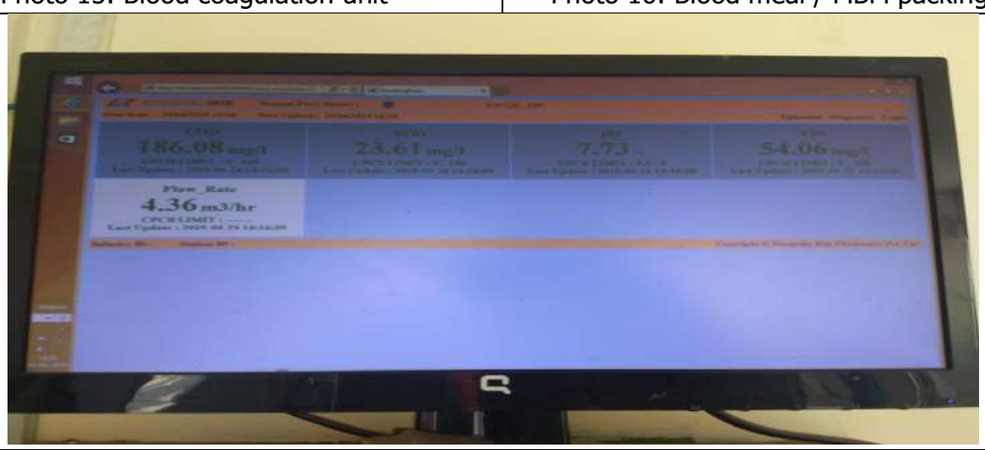


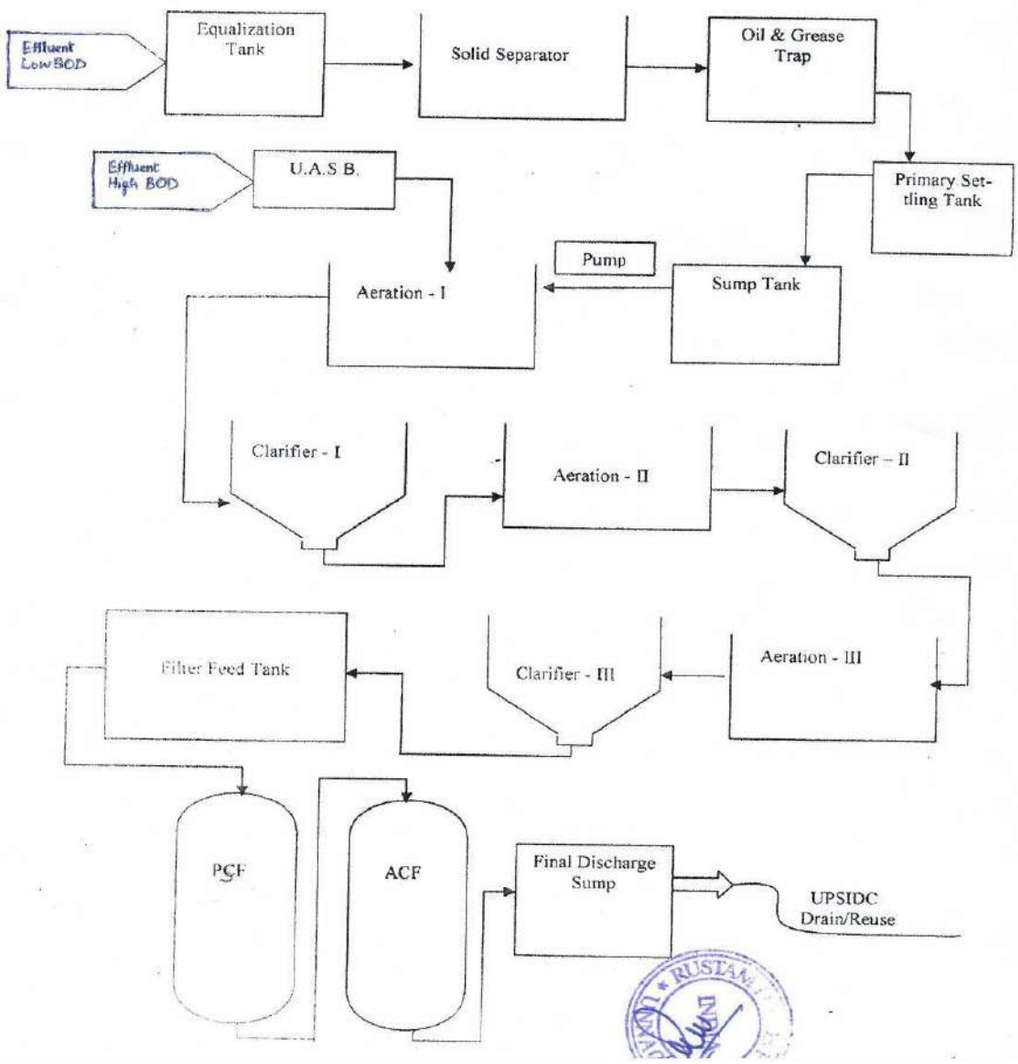
Photo 17: OCEMS display monitor

ANNEXURE I: ETP FLOW DIGRAM

Annexure –I

EPG	OF M/S RUSTAM FOODS PVT. LTD. E-28,10,9/1,9/2,27 & F-17, UPSIDC INDUSTRIAL AREA SITE-1, UNNAO (U.P.)	PROTECTION GROUP
Ref No. RFPL/UNO/EA-02		PAGE: 15

FLOW DIAGRAM OF EFFLUENT TREATMENT PLANT



Inspection Report of: **M/s Standard Frozen Foods Exports Pvt. Ltd., Vill. – Chandpur, Near Plot No. E-20, Industrial Area, Site – I, Distt. – Unnao (U.P.)**

Background of Inspection: As per NGT order dated 09.04.2019 w.r.t. OA No. 387/2019 inspection of seven (07) slaughter houses in Unnao Distrcit was to be carried out by joint teams of CPCB and UPPCB. M/s Standard Frozen Foods Exports Pvt. Ltd., Vill. – Chandpur, Near Plot No. E-20, Industrial Area, Site – I, Distt. - Unnao was inspected on April 24, 2019 in reference to the above mentioned NGT order. During inspection, the industry was in operation. Salient observations and recommendation based on the inspection of the unit are stated below:

A. GENERAL INFORMATION

1.	Name & complete Address of the Unit: Latitude & Longitude	M/s Standard Frozen Foods Exports Pvt. Ltd., Vill. – Chandpur, Near Plot No. E-20, Industrial Area, Site – I, Distt. – Unnao, Uttar Pradesh $26^0 33'05.9"N\ 80^0 31'42.0"E$
2.	Name of the: occupier/contact person & Contact No.	Mr. Sachin Varma, Mob. – 9837015120 Dr. Satish Singh, GM – Production & Quality Control – Mob. - 8052194000 Mr. Ajay Kumar, Plant Operator – Mob. - 8318094028
3.	E-mail	admin@standard.net.in
4.	Operation schedule	8 hours / day (average)
5.	Status of the UNIT (Operational/Non-Operational)	Operational
6.	Consent Status:	Under Water Act - valid upto 31.12.2023 Under Air Act - valid upto 31.12.2023
7.	Product(s) and Capacity-	

Gurvinder Singh

		Meat & Offals: 34.34 Ton (Separate record of production for Frozen Meat, MBM, Tallow and Blood meal not provided)
8.	Approx. Distance (KM) from River Ganga / its Tributary	Approx. 146 km (through Loni drain) ETP treated effluent used in irrigation
9.	Feedback from Local residents (about pollution status of the industry inspected)	No specific comments from local people
B. WATER POLLUTION		
10.	Sources of Fresh water and Consumption (m^3/day)	One Bore well Consumption - 208.7 m^3/day (as per logbook record) Consented consumption - 425 m^3/day (as per CGWA NOC)
11.	If having bore well, whether permission from CGWA or not	CGWA NOC valid till 27.06.2019
12.	Availability of Flow: measuring devices	At Tube well - Flow meter installed (Reading during visit: 176576 m^3) At ETP - Flow meter installed at outlet (Reading during visit: 163937 m^3)
13.	Waste Water Generation:(m^3/day)(Before ETP)	416 KLD (as per UPPCB consent) 150 to 160 KLD (as per ETP logbook record of April 2019) (Quantity of treated effluent discharged)
14.	**ETP details:** i. Design capacity- ii. Names of all treatment units in sequence. iii. Sludge dewatering system	1000 KLD Flow diagram attached – ***Annexure - I*** Sludge drying beds
15.	Status of ETP	ETP was operational
16.	Whether any **By-pass / multiple Outlets** of Effluent observed	No
17.	Method and Ultimate disposal point of effluent	Reuse in process/cleaning/horticulture/irrigation

Dung – Stored in pit & used as manure

ETP Sludge – Through sludge drying beds

21. **Analysis Report-** Quality of discharged effluent (for all parameters as notified under Environment (Protection) Rules, 1986

Parameter	Sampling location			Standards
	Inlet to ETP	Aeration Tank	Outlet of ETP	
pH	6.81	-	7.15	6.5 - 8.5
Colour	250	-	5.0	-
SS	1698	-	24.8	50
TDS	1970	-	1712	-
MLSS	-	2332	-	---
MLVSS	-	1934	-	
O & G	10.2	-	BDL	10
BOD	3410	-	28.7	30
COD	5480	-	91.3	250

All numerical values in the above table in mg/l except pH

Status: ***Complying***

Observations

- On the day of inspection the unit was found operational.
- The unit has got valid consent to operate (CTO) under Section 25/26 of The Water (Prevention & Control of Pollution) Act, 1974 (as amended) for discharge of effluent and under Section 21/22 of the Air (Prevention & Control of Pollution) Act, 1981 (as amended) from UPPCB with validity upto 31.12.2023.
- As per information shared, the unit is operating at 50% of consented capacity (average 247 to 248 buffaloes slaughtered against consented number of 500 buffaloes in the month of April during 1st to 24th).
- The unit has got NOC (valid till 27.06.2019) from CGWA to have three (03) borewells, however the unit has one (01) borewell for fresh water consumption. As per logbook record, about 208.7 m^3/day of fresh water is extracted by the unit against permission of 425 m^3/day by CGWA.

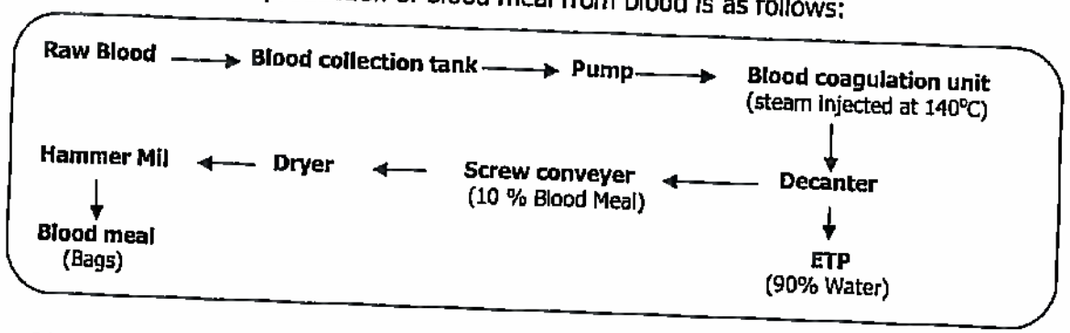
polishing tank, MGF and ACF units. Effluents with high BOD are treated by UASB before subjecting them to aeration.

- The sample from treated effluent discharge point was collected and analysed.
- The treated effluent was complying with the standards dated 28.10.2016 notified by MOEF&CC under E (P) Rules, 1986.
- Due to less slaughtering the ETP is receiving reduced amount of effluent. The ETP logbook record of April 2019 suggests average discharge of 150 to 160 KLD of treated effluent.
- The water balance provided by the unit indicates that about 60 % of the treated effluent is used for Karnal technology & farming and about 40 % is used for horticulture, lairage, road & floor washing, rendering, biofilter and cooling makeup.
- As per the CTO from UPPCB the unit is allowed to recycle the treated effluent and use it for irrigation. The unit has developed a Karnal irrigation system in the premises for using the treated effluent.
- As per the CTO from UPPCB the unit shall ensure to maintain ZLD i.e. no water should be discharged outside from the premises. However, in addition to land in the premises, the unit has made arrangements for utilizing the treated effluent for irrigation on fields outside the premise of the unit. Piped network is used for transporting the treated effluent to the acquired fields. Papers regarding land mutation, registered deeds etc. are shared by the unit.
- It was observed that treated effluent was logged in the area under the Karnal system in the premises of the unit. As per the principle of Karnal system, the effluent discharge is so regulated that it is consumed within 12-18 hours and there is no standing water left in the trenches.
- Water logging for longer durations may cause contamination of ground water by leaching of the treated effluents.
- The team visited these acquired fields and found that most of the saplings planted there are no longer live and have dried. Also major part of the field was in the form of an agricultural land with no furrows/trenches made to develop it to in the form of a Karnal irrigation system.
- The unit doesn't have any irrigation plan for using the treated effluent on the area of land in the premises or outside the premises which is a violation of the CTO by UPPCB.
- An arrangement for storing the treated effluent (in excess of requirements) in the premises is made by the unit. Treated effluent was found stored in two impermeable (polythene lined) lagoons.
- The unit has provided sludge drying beds for management of sludge. The sludge is dried

Rai Surinder Singh

of the processing of blood in the industry is given below -

a) Fresh blood from carcass dressing line is collected in stainless steel trough and pumped to blood processing plant through a closed pipe line system.
b) Fresh blood reaching blood processing plant is retained till required quantity of blood is accumulated the blood collection tank. The first step in the process is coagulation of blood in the coagulator by injecting steam of more than 120-140^{0}C.
c) After the coagulation process, the coagulated blood is passed through the decanter for the separation of solid and liquid portions.
d) The discharge from the decanter is taken to ETP for further treatment and no discharge of blood form the process observed during inspection.
e) The solid part from the decanter is sent to the drier for the complete drying of coagulated blood at 120 ^{0}C. Once the blood is dried (moisture< 8 %), the dried blood is transported to hammer mill to screw conveyors to convert the dried blood in to the fine blood meal powder of required particle size.
f) After milling, blood meal is stored in the blood meal bin to cool down to atmospheric temperature. Blood meal from blood meal bin is filled in the bags and the bags are stored in the warehouse for the dispatch on the first in first out (FIFO) basis.
g) A flow chart of production of blood meal from blood is as follows:



The unit has provided details of

→ generation of blood from slaughtering,
→ its processing to form products,
→ sale of the products, and
→ the existing stock of products.

➢ As per the record provided by the unit, number of animals slaughtered, blood generated, production of blood meal, use of blood meal to manufacture MBM/PFS (*MBM/PFS is a*

					(kg/day)	
1.	February	235 to 276	4700 to 5520	415 to 490	420 to 485	285
2.	March	229 to 272	4580 to 5440	400 to 490	410 to 480	392
3.	April (up to 23rd)	232 to 257	4640 to 5260	395 to 470	400 to 485	422

The record of production and sale of blood meal and MBM/PFS indicates that as on 23.04.2019 the industry has 430 kg of Blood meal stock and 1097 kg of MBM/PFS stock.

24 **Conclusion / Recommendation**

1. The effluent produced by the industry is treated in the ETP before use in irrigation. The treated effluent collected during inspection was conforming to the stipulated discharge standards as notified under E (P) Rules, 1986.
2. Blood generated in the Industry is collected and processed to make blood meal, which is further used to enhance the nutritive quality of poultry feed supplement (formed as dry product of rendering) and sold out.
3. The supernatant of the blood meal production process in diverted to the ETP for treatment before discharge.
4. The unit shall have periodic assessment of ground water level and maintain logbook for the same.
5. Operation and maintenance of the ETP shall be supervised by an expert and continuous monitoring of the ETP functioning shall be ensured.
6. The unit shall apply for renewal/modification of the exiting CTO to incorporate details of land area acquired by the unit outside the premises for use of treated effluent in irrigation.
7. The unit shall provide an irrigation management plan for the treated effluent form a recognised authority.
8. Application of treated effluent to the plants in Karnal irrigation system shall be regulated so that no water logging takes place in the area and avoid ground water contamination.
9. All of the area acquired by the unit outside the premises shall be developed in the form of Karnal irrigation system by making furrows/trenches.
10. The industry shall established a Bio-Mass Briquettes Plant to process the solid waste

Gurvinder Singh

CPCB, RD (N), Lucknow		UPPCB, RO, Unnao	
Dr. Sarvesh Rai, Sci. 'C'		Mr. Vikas Mishra, AEE	
Mr. Ravinder Singh, SRF		Mr. Rajendra Prasad, AEE	

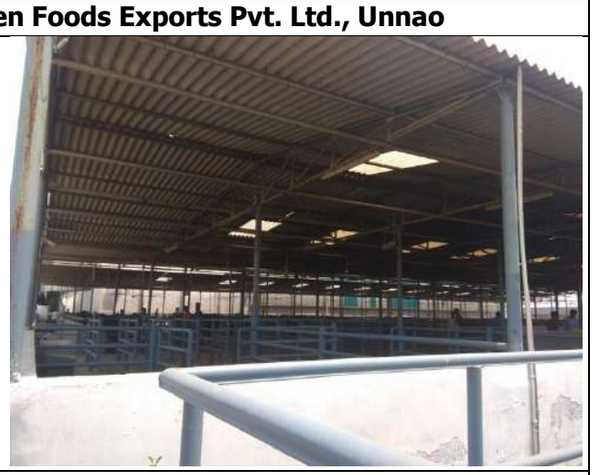
Photo gallery of M/s Standard Frozen Foods Exports Pvt. Ltd., Unnao	
	
Photo 1: Main gate of the Unit	Photo 2: Lairage area
	
Photo 3: Equalization tank	Photo 4: Solid separator
	
Photo 5: UASB system	Photo 6: Primary settling tank

	
Photo 7: Aeration tanks in series	Photo 8: Secondary settling tanks in series
	
Photo 9: Tertiary treatment with flow meter and OCEMS nearby	Photo 10: Final outlet
	
Photo 11: Sludge drying beds	Photo 12: Outlet flow meter reading

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<tr><td>  </td><td>  </td></tr>
<tr><td colspan="2">Photo 13 & 14: Water logged in irrigation area</td></tr>
<tr><td>  </td><td> 
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<tr><td>Photo 15: Treated effluent storage lagoon</td><td>Photo 16: Flow meter reading of borewell</td></tr>
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<tr><td>Photo 17: Piezometer for ground water</td><td>Photo 18: Pipeline for taking treated effluent to land outsid the premises</td></tr>
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<tr><td colspan="2">Photo 19 & 20: Area acquired by the unit outside the premsies fro using treated effluent in irrigation</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Photo 21: Blood coagulation and processing area</td><td>Photo 22: Blood meal (produced form blood)</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Photo 23: MBM/PFS stored in packed bags for sale</td><td>Photo 24: Eucalyptus logs stored in the premises for use as boiler fuel</td></tr>
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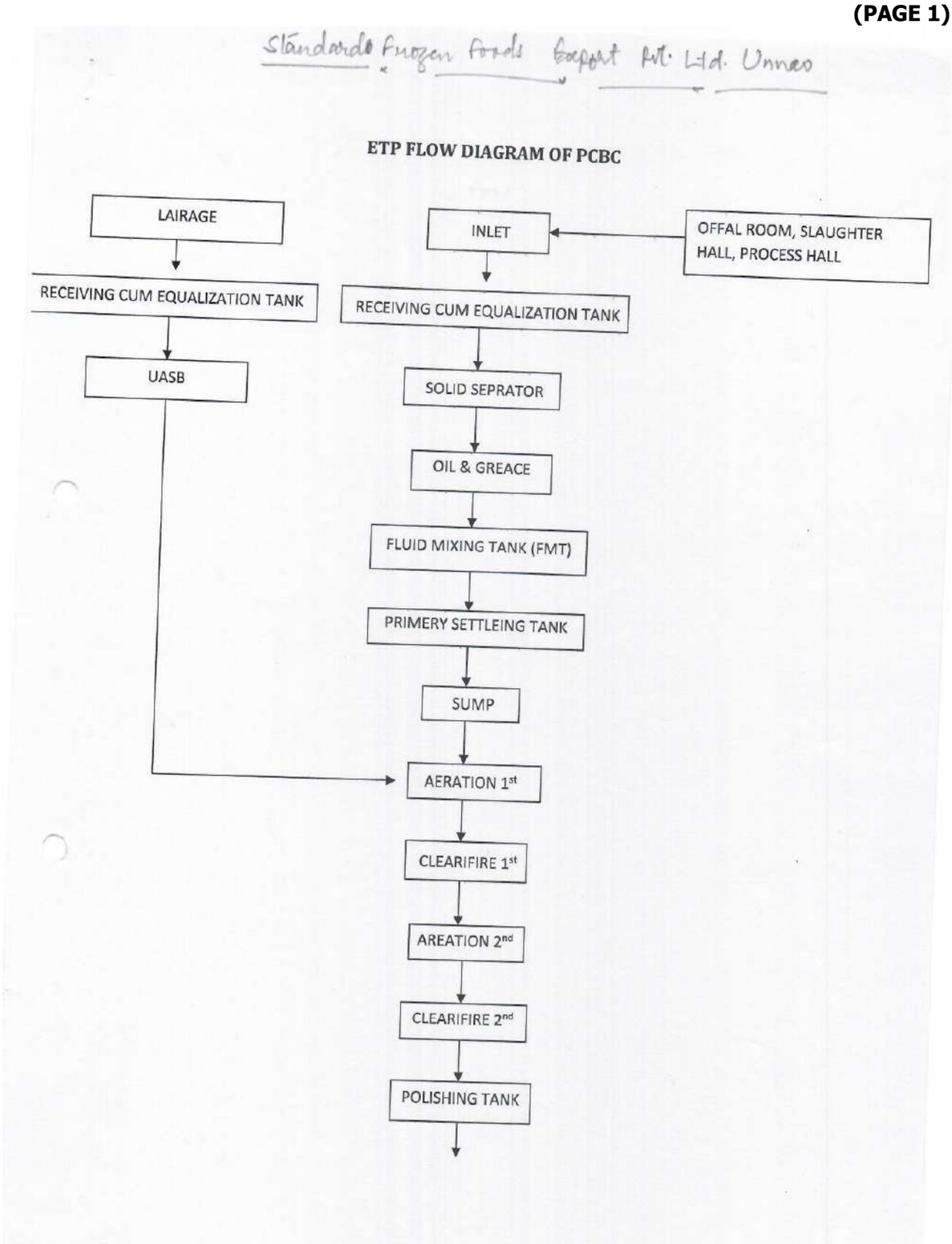
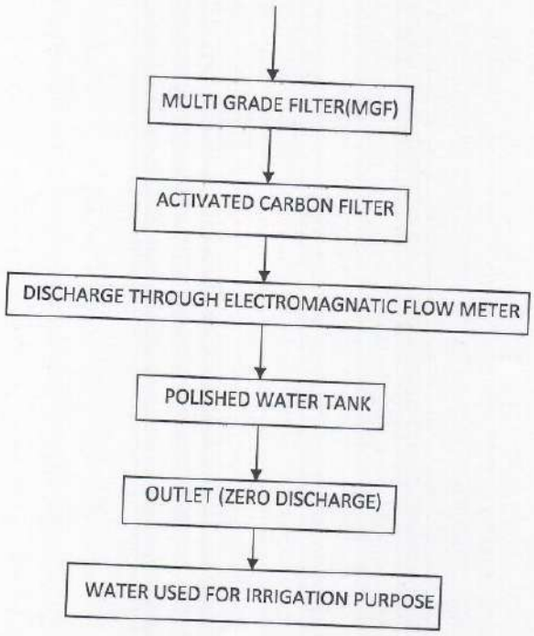
ANNEXURE – I: ETP FLOW DIGRAM
(PAGE 1)



ANNEXURE – I: ETP FLOW DIGRAM
(PAGE 2)



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