

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, NEW DELHI

Original Application No. 676 of 2023

In Re: News Item Appearing in The Times of India dated 12.10.2023 entitled "Agriculture Runoff causing groundwater pollution in Punjab, making Drinking Water unsafe Reveals Study".

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(Harjeet Singh Sandhu)

Joint Secretary to Government of Punjab
Department of Science, Technology & Environment
(On behalf of State of Punjab)

Date: 23.09.2024
Place: Chandigarh

**BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL, PRINCIPAL BENCH,
NEW DELHI**

Original Application No. 676 of 2023

In Re: News Item Appearing in The Times of India dated 12.10.2023 entitled "Agriculture Runoff causing groundwater pollution in Punjab, making Drinking Water unsafe Reveals Study".

Additional Status/Action taken Report on behalf of the State of Punjab in compliance to order dated 17.05.2024 through Joint Secretary to Government of Punjab, Department of Science Technology and Environment.

Respectfully Showeth

- 1) That briefly submitted, the Hon'ble National Green Tribunal has taken suo moto cognizance of a news item appearing in The Times of India dated 12.10.2023 titled "Agriculture Runoff Causing Groundwater Pollution in Punjab, making Drinking Water Unsafe Reveals Study". The news item was treated as Original Application no. 676 of 2023 and notices were issued to the respondents. The State of Punjab in compliance with the directions of the Hon'ble Tribunal has filed a status report.
- 2) That after consideration of the report filed by the State of Punjab, the Hon'ble Tribunal was pleased to pass an order dated 17.5.2024, wherein, some corrective measures were observed to be taken by the State.
- 3) That in compliance to order dated 17.05.2024, a status/action taken report dated 13.09.2024 on behalf of the State of Punjab has been filed before the Hon'ble Tribunal through Joint Secretary to Government of Punjab, Department of Science Technology and Environment, wherein the response of the State of Punjab has been mentioned in pursuance to the queries raised by the Hon'ble Tribunal

vide order dated 17.05.2024. The facts relating to 18 contaminated sites falling under the purview and jurisdiction of the Department of *Water Supply and Sanitation* were mentioned in the status report dated 13.09.2024. However, the facts relating to remaining 16 sites falling under the purview and jurisdiction of the Department of Local Government are being incorporated in the present status report and the facts may kindly be read in the following paragraphs.

- 4) That it is pertinent to mention here that 34 locations were found contaminated after the analysis of samples collected from 337 locations. Out of 34 contaminated locations, 18 locations fall under the purview and jurisdiction of the Department of Water Supply and Sanitation, whereas 16 locations fall under the purview and jurisdiction of the Department of Local Government for which Engineer-in-Chief, Punjab Water Supply and Sewerage Board Punjab, Department of Local Government was requested by the Executive Engineer, Water Quality of the Department of Water Supply and Sanitation, Government of Punjab, vide Letter no. 940 dated 03.06.2024 to ensure the compliance of directions issued by the Hon'ble National Green Tribunal vide order dated 17.5.2024.
- 5) That a report from the Department of Local Government through Punjab Water Supply and Sewerage Board Punjab was received on 20.09.2024 wherein it is mentioned that taking immediate remedial measures, the 16 locations (11 locations private water source, 1 already abandoned department water source and 4 house tap connections being fed through departmental water source) falling under the purview of the Department of Local Government were sealed.
- 6) That to provide potable drinking water at these 16 sealed locations through other nearest municipal water source, water samples from that nearest municipal water source were collected and analyzed for 24 parameters based upon physiochemical parameters and heavy metals through NABL accredited labs of DWSS. A report in this regard

is enclosed as **Annexure G**. Out of these 16, results of 10 have been found to be within permissible limits and results of 6 water sources of respective towns Bhikhiwind, Jagraon, Nihal Singh Wala, Rahon, KothaGuru and Bhadaur, have been found to be more than permissible limits in Arsenic, Uranium, Nitrate and Sulphate parameters. A report in this regard is enclosed as **Annexure H**.

Out of these 6 towns, at 2 towns Jagraon and Nihal Singh Wala, samples have passed in various parameters except uranium but no individual and community based plant for uranium is required in these towns as per the record of discussions of the meeting held on 16.05.2023 on the guidelines for Standard Operating Procedures (SOP) for safe disposal of uranium loaded exhausted media. In this meeting, the Bhabha Atomic Research Centre (BARC) team informed that the current limit of 30 ppb for Uranium in water is rather ambitious and they advised the state team to set up community based Uranium remediation plants where more than 60 ppb Uranium has been detected in the ground water samples. A copy of the minutes of the meeting held on 16.05.2023 under the chairmanship of Additional Secretary and Mission Director, National Jal Jeevan Mission (NJJM), DDWS, Government of India as issued by Ministry of Jal Shakti vide its file no. W-11012/9/2022-JJM-III-DDWS dated 22.05.2023 is enclosed as **Annexure I**. But this action doesn't absolve the Department of its overarching responsibility to ensure the public has access to potable drinking water, therefore to ensure permanent mitigation of these 6 towns, the ground water supply is being shifted to surface water supply under the AMRUT 2.0 scheme for which the funds to the tune of Rs. 155.43 Crore are already tied-up. DPR of Kotha Guru has already been approved from SLTC and for remaining towns, projects are under DPR stage. Simultaneously, for temporary mitigation, department is initiating the supply through water tankers and best solution to provide potable drinking water through RO plants or linking with other potable sources is being assessed. Also, regular monitoring

of drinking water from various sources (tubewells, WTPs, Distribution Points etc.) is being carried out by the Department of Local Government.

- 7) That, the report dated 29.8.2024 of the Department of Health and Family Welfare, Punjab, Stated that Health check up Camps in 15 out of 16 sites have been organized and the report suggested/revealed that none of the population checked has reported any symptoms related to the contamination of ground water. The report of the Department of Health and Family Welfare, Punjab has been incorporated in the status/action taken report dated 13.9.2024 filed before this Hon'ble Tribunal. The copy of letter dated 29.8.2024 is enclosed as **Annexure-J**.
- 8) That in reply to the direction of the Hon'ble Tribunal to ensure that containment does not bio magnify in food chain including milk and vegetables / crops, it is submitted that the Department of Agriculture and Farmers Welfare has taken on board the Punjab Biotechnology Incubator (PBTI), SAS Nagar to conduct a study in this regard and the study report will be submitted to the Hon'ble Tribunal in due course of time.
- 9) That the additional status report on behalf of the State of Punjab is hereby submitted in continuation to the earlier status report dated 13.09.2024 in compliance to the order dated 17.05.2024 for the kind consideration of the Hon'ble National Green Tribunal.

Submitted by



(Harjeet Singh Sandhu)

Joint Secretary to Government of Punjab
Department of Science, Technology & Environment

(On behalf of State of Punjab)

Date: 23.09.2024
Place: Chandigarh

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PUNJAB WATER SUPPLY & SEWERAGE BOARD
PLOT NO. 1-B, SECTOR 21-A, CHANDIGARH

To

Joint Secretary,
Department of Science, Technology and Environment,
Punjab

No. PWSSB/2024/ 18377

Dated 20/09/2024

Subject:- **O.A. No. 676 of 2023 – News Item titled “Agriculture Runoff causing groundwater pollution in Punjab Making Drinking Water unsafe Reveals Study” appearing in The Times of India dated 12.10.2023 (Fixed for 24.09.2024).**

In context to above mentioned subject, it is submitted that earlier the Department of Water Supply & Sanitation shared a list of 46 sampling sites along with their latitude / longitudes vide DO letter SS/PSWSS/2024/1064 dated 07.05.2024 falling under the jurisdiction of Department of Local Government. The samples of drinking water source at these 46 locations were got collected and got analyzed in NABL accredited laboratories of DWSS. These tests were conducted for 24 parameters based upon physiochemical parameters and heavy metals parameters prescribed for the purpose of drinking water as per IS 10500: 2012 (Rev 2). Out of these 46 locations, 30 locations were found to be within permissible limits and water sample results of remaining 16 locations were found to be beyond permissible limits in various parameters. Taking immediate remedial measures, the 16 locations (11 locations private water source, 1 already abandoned department water source and 4 house tap connections being fed through departmental water source) falling under the purview of the Department of Local Government were sealed.

To provide potable drinking water at these 16 sealed locations through other nearest municipal water source, water samples from that nearest municipal water source were collected and analyzed for 24 parameters based upon physiochemical parameters and heavy metals through NABL accredited labs of DWSS. A report in this regard is enclosed as **Annexure A1**. Out of these 16, results of 10 have been found to be within permissible limits and results of 6 water sources of respective towns Bhikhiwind, Jagraon, Nihal Singh Wala, Rahon, KothaGuru and Bhadaur, have been found to be more than permissible limits in Arsenic, Uranium, Nitrate and Sulphate parameters. A report in this regard is enclosed as **Annexure A2**.

Out of these 6 towns, at 2 towns Jagraon and Nihal Singh Wala, samples have passed in various parameters except uranium but no individual and community based plant for uranium is required in these towns as per the record of discussions of the meeting held on 16.05.2023 on the guidelines for Standard Operating Procedures (SOP) for safe disposal of uranium loaded exhausted media. In this meeting, the Bhabha Atomic Research Centre (BARC) team informed that the current limit of 30 ppb

- 6 -

for Uranium in water is rather ambitious and they advised the state team to set up ~~community based Uranium remediation plants where more than 60 npb Uranium has~~ been detected in the ground water samples. A copy of the minutes of the meeting held on 16.05.2023 under the chairmanship of Additional Secretary and Mission Director, National Jal Jeevan Mission (NJJM), DDWS, Government of India as issued by Ministry of Jal Shakti vide its file no. W-11012/9/2022-JJM-III-DDWS dated 22.05.2023 is enclosed as Annexure A3.

But this action doesn't absolve the Department of its overarching responsibility to ensure the public has access to potable drinking water, therefore to ensure permanent mitigation of these 6 towns, the ground water supply is being shifted to surface water supply under the AMRUT 2.0 scheme for which the funds to the tune of Rs. 155.43 Crore are already tied-up. DPR of Kotha Guru has already been approved from SLTC and for remaining towns, projects are under DPR stage. Simultaneously, for temporary mitigation, department is initiating the supply through water tankers and best solution to provide potable drinking water through RO plants or linking with other potable sources is being assessed. Also, regular monitoring of drinking water from various sources (tubewells, WTPs, Distribution Points etc.) is being carried out by the Department of Local Government.

This is for your kind information further necessary action.


DA/As Above


Chief Executive Officer
Punjab W/s & Sew. Board

Endst No.: PWSSB/2024/

Dated:

Copy of above is forwarded to Member Secretary, Punjab Pollution Control Board for information and further necessary action please.


Chief Executive Officer
Punjab W/s & Sew. Board



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S/N	Circle	Ward/Block	Name of location	Name of place/location of CHES	Latitude of source	Longitude of source	Type of source	Under jurisdiction	Name of other Department/Location	Name of M/C	Aluminum	Lead	Cadmium	Chromium	Mercury	Arsenic	Cobalt	Nickel	Iron	Copper	Uranium	Fluoride	Nitrate	Sulfate	pH	Odour	Colour	Turbidity	TDS	Chloride	Hardness	Alkalinity	Calcium	Iron
1	Amritsar	Jalandhar	Shikhar	Bharat Petroleum R & Filling Station	31.079	75.33	TW	Other Department	MC Station, Serna Bhaur Petroleum Filling Station, Pathi Rd, 883727421	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	0.009	BOL	BOL	0.005	BOL	23.13	0.51	1.11	94.98	8.45	-	-	2.19	328	10.57	116	272	13	20
2	Amritsar	Kapurthala	Kapurthala	Ajit Motor & Garage near Kpurthala	31.369	75.381	TW	Other Department	1. Ajit Motor Garage (Shop), S. S. Dhillon, 981302927 2. Municipal Corporation, Kapurthala, Amritsar, Moh. 9872997863	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	0.009	BOL	15.5	0.57	9.34	12.22	8.18	-	4.89	225	14.55	194	200	35	23	
3	Amritsar	Kapurthala	Nadala	Kala filling station near road Bhabha	31.535	75.506	TW	Other Department	Own Source, Chandi Singh, 9813046132 (Area site under MC jurisdiction)	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	0.008	BOL	BOL	BOL	BOL	0.34	1.82	6.09	8.38	-	3.65	241	3.2	112	204	24	13		
4	Amritsar	Tarn Taran	Bhabha	In the Compound of BPO Office	31.35	74.7	TW	Other Department	Generator Shop (BPO office) 978130123 Maghi Singh, Supervisor MC Bhabha, 7288875550	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	0.028	BOL	BOL	0.67	BOL	0.32	2.37	2.22	8.23	-	0.63	248	3.45	160	224	29	21		
5	Ludhiana	Ludhiana	Chander Singh Park	From Indian oil petrol pump (Station opp. preet park)	30.9	75.792	TW	Other Department	Owner of Petrol Pump M. 981530319 (Own Saline-Saline Pump) (Area under MC jurisdiction)	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	0.39	0.48	13.37	12.92	7.98	-	0.13	343	11.17	284	320	64	30		
6	Ludhiana	Ludhiana	Jagan	Near Bus Stand on the left side of Schwabher road left side Handpump inside military ground	30.775	75.471	HP	Other Department	Own Source (Sedimentable Pump) of Temp. Union, (Area under MC jurisdiction)	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	0.01	BOL	33.18	0.38	16.65	23.87	7.93	-	1.28	354	13.53	328	300	82.00	30.00
7	Ludhiana	Moga	Nihal Singh Vaha	50m from op same location			TW	Other Department	1. Municipal Committee, Moga, 2. Sh. Raju, Sarna CO, 981306801	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	49.37	0.37	28.6	39.67	8.12	-	2.78	452	71.17	312	372	45	49		
8	Chandigarh	Hamirpur	Rabon	HP Outer name: Bhabha Singh Opp. Talleer Shop of Sh. Dajjit	31.057	76.136	DW	Other Department	1. Municipal Committee, Hamirpur, 2. Sh. Raju, Sarna CO, 981306801	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	24.62	0.47	126.05	26.58	7.73	-	0.23	472	63.16	428	376	144	35	
9	Chandigarh	SAS Nagar	Kapur	HP Outer name: opp. Shree mandir pipe line near M/S DW	30.592	76.846	DW	Other Department	MC Parkash, Tara Govt. School (F. 705227059)	Dr. P. S. Dhillon	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	0.26	6.3	39.29	7.99	-	0.18	328	18.36	240	292	55	25		

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Sl. No.	Circle	Name of District	Name of Block	Name of location of CWSP	Name of Physical location of CWSP	Latitude of source	Longitude of source	Type of CWSP	Under other Department/Institution	Details of other Department/Institution	Name of nearest M.C. Source of water	Aluminum Heavy Metals (mg/l)	Lead Heavy Metals (mg/l)	Selenium Heavy Metals (mg/l)	Chromium Heavy Metals (mg/l)	Mercury Heavy Metals (mg/l)	Arsenic Heavy Metals (mg/l)	Cadmium Heavy Metals (mg/l)	Nickel Heavy Metals (mg/l)	Iron Heavy Metals (mg/l)	Copper Heavy Metals (mg/l)	Uranium Heavy Metals (mg/l)	Radioactive Substances (mg/l)	Nitrate (mg/l)	Sulphate (mg/l)	pH	Colour (CU)	Turbidity (mg/l)	Dissolved Hardness (mg/l)	Total Hardness (mg/l)	Iron (mg/l)	Manganese (mg/l)	Calcium (mg/l)	Magnesium (mg/l)		
1																																				
10	Bahinda	Falaha		Abolhar	Johri Mandir Bahadpur	30.15	74.192	HP	Other Department	Municipal corporation ABQHAJ, JE. Smit (978888442), SDE - (V/gram Singh) (869435241), Executive Engineer - Bahadpur (126014800)	Clear water at New WTP Abolhar	0.122	BOL	BOL	BOL	BOL	0.006	BOL	BOL	0.021	BOL	BOL	0.47	3.81	34.45	7.88		3.06	193	17.96	140	92	32	15		
11	Bahinda	Rhanda		Kotla gur	Sample collected from house in front of station address to Kona Guru Kotla Gur	30.43	74.1	TW	Other Department	The water sample is taken from source 1. Bahadur Singh 947254812, (Area 146 under M.C. Bahadpur) (126014800)	Tubewell in Dhanamji Jaland no.05	BOL	BOL	0.009	BOL	BOL	0.04	BOL	BOL	0.014	BOL	BOL	44.81	0.52	40.33	602.12	7.67	0.72	876	197.76	320	316	50	48		
12	Amritsar	Amritsar	Alaha		Near Durgawell Alaha	31.846	74.798	TW	Other Department	Water supply and Sewerage board Alaha SOO Durgawell (788904602 JE Gurprek Singh 980831539)	Tubewell M.C. Office	BOL	0.002	BOL	0.001	0.004	BOL	BOL	0.014	0.002	12.108	0.35	1.3	19	7.55	Agreeable	1	0.1	278	31.88	212	288	43.28	23.27		
13	Amritsar	Amritsar		Ranada	From Durgawell in Gurulwara Sialbi	31.967	74.917	DW	Other Department	Water supply and Sewerage board SOO Ranada (788904602 JE Shivani Shah 998221286)	Tidewell Mugh Gate	0.006	0.002	0.001	BOL	0.006	BOL	BOL	0.014	0.002	16.293	0.3	1.2	18	7.72	Agreeable	1	0.39	243	27.29	248	41.68	23.32			
14	Ludhiana	Patiala		Samana	House of Gurcharan Singh 50 Bahadur 508, 400 m	30.146	76.19	TW	Other Department	Water supply and Sewerage board No.3 Jadhon 734091795, - Simran Nehra JE 887259882	Tidewell near Panch Bani	0.041	BOL	0.01	BOL	BOL	BOL	BOL	BOL	0.007	0.015	10.59	0.8	11	277	7.57		0.55	10.90	364	172	80	40			
15	Sangur	Barnala		Bahadur	20m from pz same location	30.675	75.324	TW	Other Department	Municipal committee Bahadur 974, Kaur JE 960239580	1, near Panch Bani	0.038	BOL	BOL	BOL	BOL	BOL	BOL	BOL	0.006	0.012	82.73	0.4	101.65	238.83	7.49	Agreeable	<5	0.32	7.98	169	300	516	48	44	
16	Bahinda	Fardiac		Kapua	Handpur Near Crossing of Daru Mal Dhanamshala	30.58	74.833	HP	Other Department	1. Punjab Water supply & Sewerage Board 2. JE Sudeep Singh (945039393) 3. SDC - Jalandhar (924028337)	water works near water	0.016	BOL	BOL	BOL	BOL	BOL	BOL	BOL	BOL	0.006	0.012	82.73	0.4	101.65	238.83	7.49	Agreeable	<5	0.28	12.5	40.85	104	52	26	10

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Annexure-H

Annexure A2

S/N	Grade	Name of district	Name of block	Name of location of CGWB	Name of Physical location of CGWB	Latitude of source	Longitude of source	Type of source of CGWB	Falls under other Department/Jurisdiction	Details of other Department/location	Name of nearest MC Source of Water Supply	Aluminum (mg/l)	Lead (mg/l)	Selenium (mg/l)	Chromium (mg/l)	Mercury (mg/l)	Arsenic (mg/l)	Cadmium (mg/l)	Nickel (mg/l)	Iron (mg/l)	Copper (mg/l)	Uranium (ug/l)	Fluoride (mg/l)	Nitrate Anions (mg/l)	Sulfate Anions (mg/l)	pH Basic	Chloride Basic (mg/l)	Colour Basic (CU)	Turbidity Basic (mg/l)	TDS Basic (mg/l)	Chloride Basic (mg/l)	Hardness Basic (mg/l)	Alkalinity Basic (mg/l)	Calcium Basic (mg/l)	Magnesium Basic (mg/l)	
1	Ambarsar	Taran	Bhikhwi	Bhikhwi	In the Compound of BDO Office	31.35	74.7	TW	Other Department	Gurukul Singh (BPO Office) 97838-04618 Manik Singh Supervisor MC Bhikhwi 72882-75550	Tubewell I MC office bhikhwi	BDL	BDL	BDL	BDL	0.028	BDL	BDL	0.007	BDL	BDL	0.32	0.32	2.37	2.22	8.23	-	-	0.63	248	3.45	160	224	29	21	
2	Ludhiana	Ludhiana	Jagrach	Near Bus Stand on Tarnu stand Jagrach to Sidhwanthek road left side Handpump inside military ground	30.775	75.471	HP	Other Department	Own Source (Submersible Pump) of Tempo Ujhana. (Area under MC Jurisdiction)	City Enclave Tubewell	BDL	BDL	0.008	BDL	BDL	BDL	BDL	BDL	0.01	BDL	BDL	33.18	0.53	16.65	23.87	7.93	-	-	1.28	354	13.53	328	300	82.00	30.00	
3	Ludhiana	Moga	Nihal Singh Wala	Dim from pr same location			TW	Other Department	1. Municipal Committee Nihal Singh Wala 2. Sh. Jender Kumar Sharma (Inspector) 3. Mob No: 7986049736	TW Near Kamla Nehru School Nihal Singh Wala	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	49.37	0.37	28.6	39.67	8.12	-	-	2.78	452	71.17	312	372	45	49		
4	Chandigarh	Navsar	Rahon	HP Owner name: Bhupinder Singh S/o Piyaa Singh, Opp. Tailoring shop of Sh. Diljit	31.057	76.136	DW	Other Department	1. Municipal Committee Bahon 2. Sh. Raju Saran 3. Mada. No. 981506801	TW No.1 Sewer Kandra	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	24.62	0.47	126.08	26.93	7.73	-	-	0.23	472	65.16	428	376	114	35
5	Bahadur	Bahadur	Kochhagu	Collected from the house in front of NHS station adjacent to Kirona Store, Kotla Ghu	30.43	75.1	TW	Other Department	The water sample is taken from own source 1. Bahadur Singh s/o Mukhtiar Singh 9477548212 (Area falls under MC Jurisdiction)	Tubewell 1 in Dharamsala ward no.05	BDL	BDL	0.009	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	44.81	0.52	40.33	602.12	7.67	-	-	0.72	876	197.76	320	316	50	48
6	Sangur	Barnala	Bahadur	20m from pr same location	30.475	75.324	TW	Other Department	Municipal committee Bahadur Sh. Ajay Kumar JE 9802353530	TW No. 1 near Public National Bank	0.038	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.006	0.012	82.73	0.4	101.65	238.83	7.49	Agresht	<5	0.52	758	169	300	516	48	44		

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W-11012/9/2022-JJM-III-DDWS
Government of India
Ministry of Jal Shakti
Department of Drinking Water and Sanitation
National Jal Jeevan Mission

4th Floor, 'Antyodaya' Bhawan
CGO Complex, Lodhi Road,
New Delhi-110 003
Date: 22 .05.2023

To

i) **Principal Secretary,**
Department of Water Supply and Sanitation
Government of Punjab

ii) **Shri S.K.Jha**
Head, Radiation Protection Section (Nuclear Fuels)
Health Physics Division, BARC

iii) **Shri Soumen Sinha**
Scientific Officer/G, Atomic Energy Regulatory Board,
Department of Atomic Energy

Subject: Record of Discussion of meeting held on 16.05.2023-reg

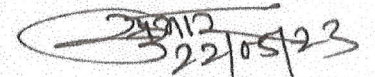
Sir,

A meeting to discuss the SOP for safe disposal of Uranium loaded exhausted media was held on 16th May 2023 at 11.00 AM in Minister's Conference Room, 4th floor, Deendayal Upadhyaya Antyodaya Bhavan, New Delhi.

2. In this regard, I am to convey the record of discussion of the meeting for information and necessary action.

Encl: As above

Yours faithfully,



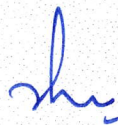
(Sunil Kumar)

Under Secretary to the Govt. of India

Email: sunil.kumar70@nic.in

Copy to:

- i.) PPS to Secretary, DDWS
- ii.) PPS to AS & MD, NJJM
- iii.) All DS/Director, NJJM
- iv.) Deputy Advisor (AM) & (SP), NJJM



Record of discussions of Meeting held on 16.05.2023 on guidelines for Standard Operating


Procedures (SOP) for safe disposal of Uranium loaded exhausted media

A meeting to discuss the SOP for safe disposal of Uranium loaded exhausted media was held on 16th May 2023 at 11.00 AM in Minister's Conference Room, 4th floor, Deendayal Upadhyaya Antyodaya Bhavan, New Delhi. The meeting was chaired by Additional Secretary and Mission Director, NJJM, DDWS, Government of India. List of participants is enclosed at Annex - I.

2. The AS & MD, NJJM, DDWS, Government of India welcomed the representatives from BARC, DAE, and Government of Punjab. The AS&MD, NJJM, DDWS, Govt. of India informed that:

- A meeting was held on the 17th February 2023 in which BARC representatives were requested to finalise the Standard Operating Procedures (SOP) for appropriate treatment and disposal of Uranium laden media.
- The BARC and DAE representatives elaborated upon the SOPs prepared by them and briefed those present regarding various requirements including the licencing, training, safety protocols and other requirements that have to be mandatorily fulfilled for ensuring the objective.
- The BARC and DAE representatives informed that the State needs to procure single licence valid for a term of three years from DAE. All the projects/facilities where Uranium remediation may take place must be listed in the application. Based upon the quantity of Uranium estimated in the waste media, "Cementation" or "Plasma based Incineration" of spent resin shall be decided.
- The BARC team also informed that the current limit of 30 ppb for Uranium in water is rather ambitious and they advised the State team to set up Community based Uranium remediation plants where more than 60 ppb Uranium has been detected in the ground water samples.
- It was also decided that other stakeholders such as Central Pollution Control Board as well as the MoEFCC will also be consulted in the matter to firm up the plan before implementation.

3. The AS & MD, NJJM, DDWS assured the State team that all support under JJM will be made available for addressing Uranium contamination issues in ground water sources. It was also decided to convene another meeting with officials of CPCB and MoEFCC for finalization of the same. The details of meeting will be communicated separately.



List of Participants**Government of India**

1. Shri Vikas Sheel, Additional Secretary & Mission Director, NJJM, DDWS, Ministry of Jal Shakti
2. Shri Pradeep Singh, Director, NJJM, DDWS
3. Shri Y. K. Singh, Director, NJJM, DDWS
4. Shri Ajay Kumar, Director Water Quality, NJJM, DDWS
5. Shri Arunkumar Kembhavi, DS, NJJM, DDWS
6. Shri A. Muralidharan, Dy. Advisor, NJJM, DDWS
7. Shri Sumit Priyadarshi, Dy. Advisor, NJJM, DDWS
8. Shri Neeraj Sharma, Sr. Infrastructure Specialist, NJJM, DDWS

Bhabha Atomic Research Centre

1. Dr. S.K.Jha, Head Radiation protection section, Health, Safety & Environment group
2. Shri K.C.Pancholi, Scientific Officer/ G, Nuclear recycle group
3. Dr. Soumitra Kar, Scientific Officer/ G, Chemical Engineering Group

Department of Atomic Energy.

1. Shri. Soumen Sinha, Scientific officer/ G, Atomic Energy Regulatory Board, Department of Atomic Energy.

Government of Punjab

1. Shri Rajesh Kumar Khosla, Chief Engineer, DWSS, Government of Punjab.
2. Shri Ishan Kaushal, Executive Engineer, Water Quality, DWSS, Government of Punjab.
3. Shri Paramveer Singh, SDE, Water Quality, DWSS, Government of Punjab





Government of Punjab
Department of Health and Family Welfare
(Health-5 Branch)

Member Secretary,
Punjab Pollution Control Board, Nabha, Distt.- Patiala.

Dated, Chandigarh; 29th August, 2024

Subject:- NGT:- Original Application. 676/2023 Compliance of order dated 17.05.2024 of Hon'ble NGT. In re: News Item appearing in the Times of India dated 12.10.2023 titled "Agricultural Runoff causing ground water pollution in Punjab, making Drinking Water unsafe, Reveals Study (Fixed for 24.09.2024)."

Sir,

I am directed to invite your kind attention to D.O letter no.19926, Dated 09.08.2024 received from Prof.(Dr.) Adarsh Pal Vig, Chairman, Punjab Pollution Control Board (PPCB) on the subject cited above and to inform you that in compliance to the Hon'ble National Green Tribunal order dated 17.05.2024, a letter No.DM Cell/PB/2024/442-57 dated 20.06.24 was issued to the Civil Surgeons for holding health camps at containment sites (list provided by Department of Water supply and Sanitation and Sewerage Board) . As per directions issued vide letter No.Pollution Control/PB2022/20-39 dated 22.08.22, districts that have river catchment areas have to hold Health Check-up Camps in areas surrounding those catchment areas on monthly basis and submit the report by the 3rd of every month. As per the health camp reports received so far, the information/report of points related to Department of Health and Family Welfare, Punjab is submitted below:-

1. For year 2023-2024, a total of 3568 health check-up camps have been held in districts having river catchment areas with 97,361 people examined During the period January to June,2024, 520 camps were organised with 13,807 population examined.
2. As per protocol if any diseases are reported in river catchment area during these health camps, whenever water borne diseases are reported in any area, Chlorine pellets are distributed to the households in the affected area, health education is imparted regarding personal hygiene, sanitation and use of portable water and to boil water before consumption etc.
3. As for the health camps at the contamination sites , total of 28 health camps have been organised in the 16 districts in the month of July,2024(Amritsar, Barnala, Bathinda, Faridkot, Fatehgarh Sahib, Fazilka, Jalandhar, Kapurthala, Ludhiana, Moga, Patiala, Rupnagar, Sangrur, SAS Nagar, SBS Nagar and Tarn Taran). Nearly 24,751 population was examined in these health camps.
4. None of the examined population reported any symptoms related to ground water contamination.
5. Districts carried health awareness activities regarding drinking safe and portable water, house visits were also made and where required water sampling was also done."

02. The Compiled Health Camps Report is annexed at 'Annexure-A' & letters issued to Civil Surgeons for holding health camps is annexed at 'Annexure-B'.
03. This letter is being issued with the approval of competent authority.

Yours faithfully,

Sd/-
Under Secretary Health

No. HFW-HLH5021/65/2024-1H5 I/914812/2024 Dated, Chandigarh; 29th August, 2024
A copy of above letter is sent to the following:-

1. Principal Secretary, Department of Water Supply & Sanitation in reference to their D.O. letter no.: SSWSS/WQ/2, Dated 07.08.2024 for information/necessary action.
2. O.S.D (Lit.) to Chief Secretary, Punjab in reference to their letter no.: OSD (Lit)/CS/2024/3457867, Dated 21.08.2024 for information only.

Sd/-
Under Secretary Health

Reporting Format for Health Check-Ups at Contamination Site							
S. No.	District Name	Name of Block	Name of Village affected	Total Population/ population examined	Main Contaminant	No. of people found affected due to said contamination	Action taken (referred to higher facility/put on medication/ sent for further investigation)
1	Amritsar	Ajnala	Ajnala	21,635/ 68	Arsenic	Nil	
2	Amritsar	Ramdas	Ramdas	233450/ 105	Arsenic	Nil	
3	Amritsar	Ramdas	Gaggomahal	6735/110	Arsenic	Nil	
4	Barnala	Tapa	Bhadaur	24225/124	Uranium	no one reported	Nil
5	Bathinda	Bhagta	Kotha Guru	9597/9597	Uranium	Nil	NIL
6	Faridkot	Kotkapura	Shanti Van Kotkapura	2952/216	Uranium Sulfate Fluoride	Nil	
7	Fatehgarh Sahib	PHC Nandpur	Chunni Kalan	6641/76	Increased Flouride content	Nil	
8	Fazilka	Dabwala Kallan	Jhok Deepulana	3223/746	nitrate anions	0	
9	Jalandhar	Shahkot	Shahkot	14070/340	Nitrate Anions	Nil	
10	Kapurthala	Bholath	Katra Filling Station kartarpur road (ward No.10)	1238/1238	Selenium heavy metal	Nil	
11	Kapurthala	Kapurthala	near Ajit Motor Garage (ward No.22)	900/900	Uranium	Nil	
12	Ludhiana	Jagraon	Back site of bus stand near truck union	1250/60	Ganda Nala	Nil	water sampling being done and site spray was also done
13	Ludhiana	UPHC Model Town	Sarwan service station, petrol pump, near bus stand, opposite Preet Palace	150/50	Nitrate anion	Nil	awareness given regarding waterborne and vectorborne diseases
14	Ludhiana	Payal	rest house Doraha	53/31	Selenium heavy metal	Nil	Health awareness activities
15	Ludhiana	Payal	Gurdwara Begowal	362/74	Selenium heavy metal	Nil	Health awareness activities
16	Moga	Nihal Singh Wala	Nihal Singh Wala	10852/1528	no Contamination found	Nil	N.A
17	Patiala	Shutrana	Shergarh	3700/49	no Contamination found	Nil	
18	Patiala	Dudan Sadan	Dharamheri	1128/65	no Contamination found	Nil	
19	Patiala	Harpalpur	Manjoli	7177/55	no Contamination found	Nil	
20	Patiala	Kalo Majra	Thupa	2850/80	Fluoride	Nil	
21	Rupnagar	Bharatgarh	Miani	95/95	Arsenic	Nil	
22	Rupnagar	Bharatgarh	Chak Dhera	532/532	Arsenic	Nil	Whole population from both the villages covered in June and July. Health

							education was given and survey was done
23	Sangrur	Longowal	Bahadarpur	4215/4215	none	Nil	6 Sample of drinking water taken by H2S kits, all found Ok
24	Sangrur	Longawal	Bugra	2536/2536	None	Nil	236 house visited
25				0000/000	nitrate Anions	2	Two CA breast cases (already treated)
26	SBS Nagar	Muzaffarpur	Nilowal, Kot Ranjha, Jadla Road, Urban Rahon (village adjoining contaminated sample site)	2645/107	AS per record (nitrate Anions 45.74 mg/l)	0	
27	Tarn Taran	CHC Mianwind	Goindwal Sahib	22151/835	Arsenic	0	Awareness by display about safe and portable water and concerned diseases and water sampling being done. Various health awareness activities done regarding like camp and seminars. Awareness by display about
28	Tarn Taran	CHC Sursingh	Bhikhiwind	11784/750	Uranium, Selenium, Nitrate Anions	0	Awareness by display about safe and portable water and concerned diseases and water sampling being done. Various health awareness activities done regarding like camp and seminars.

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