

**Salient features of the Forensic Evaluation & Interpretation of Neutron Activation Analysis (NAA) Reports of Dr. Morris (on the Hair Samples of Srila Prabhupada), alongwith Pharmaco-Pathological and Medico-Legal Assessment Report of August 2024 of Truth Lab**

Mr. Naveen Khurana submitted a requisition letter dated September 1, 2019, along with the certain documents to Truth Lab for Forensic Evaluation & Interpretation of Neutron Activation Analysis (NAA) Reports of Dr. Morris on the Hair Samples of Srila Prabhupada, Pharmaco-Pathological and Medico-Legal Assessment Report on the cause and manner of death of Bhaktivedanta Swami Srila Prabhupada, who passed away on 14th November, 1977.

**Dr. Gandhi PC Kaza, Chairman and Founder of Truth Labs, an Independent Forensic Science Laboratory in India constituted an Experts' Committee for forensic evaluation and interpretation of the results of NAA analysis, and based on the available NAA reports and background information provided, to carry out Pharmaco-Pathological and Medico-Legal assessment on the cause and manner of death of Srila Prabhupada, with the following members:**

- a. **Dr. Gandhi PC Kaza, Chairman and Senior Forensic Expert of Truth Labs, Hyderabad for Forensic Evaluation on NAA Reports,**
- b. **Dr. D. M. Ravichand, Professor & Consultant of Pharmaco-Pathology of Truth Labs, Hyderabad to examine the Pharmaco-Pathological aspects of the incident, and**
- c. **Dr. M. Narayana Reddy, Professor and Medico-Legal Consultant of Truth Labs & Professor of Forensic Medicine & Toxicology, Hyderabad to analyse the NAA and Pharmaco-Pathological reports along with background documents, to arrive at an opinion about the cause and manner of death of Swami Srila Prabhupada.**

**NAA EVALUATION AND INTERPRETATION REPORT:**

1. *Based on the details of chain of custody of six hair samples ('Q1', 'D', 'A', 'J', 'ND-2' and 'Q2') provided in the requisition letter as 'Annexure-I', the following facts were drawn:*
  - a. *The ISKCON's Governing Body Commission (GBC) and other followers of Srila Prabhupada preserved the scalp hair as sacred relics.*
  - b. *Dr. J. Steven Morris of University of Missouri at Columbia tested six of Srila Prabhupada's scalp hair samples preserved as sacred relics for NAA for the presence of arsenic (As), cadmium (Cd), antimony (Sb) and mercury (Hg). These samples were tested at different times in 1999, 2002 and 2005.*
  - c. *The hair samples collected, 'J' and 'ND-2' were from the period before mid-1976, whereas the remaining four samples 'A', 'D', 'Q1' and 'Q2' were taken between Nov 1976-Sep 1977.*

2. The results of NAA performed by Dr. J. Steven Morris at MURR are shown in Table-1 below:

*\*NAL: Normal Average Level in ppm as stated by Dr. J. Steven Morris and the requisition authority.*

S. No.	Sample	Metallic Poison Tested (ppm)				No. of times above normal level
		As	Cd	Sb	Hg	
		*NAL: 0.13	*NAL: 0.07	*NAL: 0.08	*NAL: 1	
1.	Q1	2.6	Not tested		As: 20 times more	
2.	D	0.640	19.9	0.661	3.72	D: 284 times more Hg: 2.72 times more Sb: 8 times more
3.	A	0.200	12.4	0.186	5.16	Cd: 177 times more Hg: 4.16 times more
4.	J	0.082	<2.3	0.080	1.62	Hg: Just above normal level
5.	ND-2	0.141	0.206	0.013	1.85	Hg: Just above normal level
6.	Q2	0.85	14.9	Not tested		Cd: 212 times more

**Table-1: Results of NAA.**

3. Based on the above table, the following inferences are drawn:

- a. The test results indicate that the cadmium levels were abnormally high ranging between 177-284 time.
- b. The above results clearly indicate the multiple times cut hair samples marked as 'A' and Q2' contained 177 times and 212 times higher levels of Cadmium, whereas the single cut sample marked as 'D' contained the highest quantity of Cadmium. The above variations in the hair samples strongly indicate that the single cut sample containing 284 times more cadmium levels is one of the highest levels of ingestion.
- c. The NAA test results show that Srila Prabhupada was primarily poisoned with cadmium.
- d. Arsenic, Antimony and Mercury appear to have been used in toxic doses occasionally.

- e. Two scalp hair samples 'J' and 'ND-2' belonged to the period when Srila Prabhupada's health was near normal indicating the toxic ingestion could have been initiated after mid-1976, whereas the remaining four samples 'Q1', 'D', 'A' and 'Q2' belonged to the period when his health had rapidly deteriorated in the last stages of his life.

#### **4. PHARMACO-PATHOLOGICAL ASSESSMENT REPORT:**

##### **Toxicity of Cadmium:**

- a. Cadmium is a metabolic poison and when orally ingested, cadmium gets deposited in the kidneys and liver, and a minimal amount is excreted through urine. Cadmium causes renal tubular damage, leading to overall physical deterioration.
- b. Cadmium is a naturally occurring toxic heavy metal that interferes with the functioning of some of the basic chemical processes that sustain life.
- c. It is present in only trace amounts in the environment.
- d. Cadmium is a cumulative poison due to slow excretion from the body. About 10 mg of ingested cadmium causes severe toxic symptoms.
- e. Cadmium is carried through the blood and gets deposited in the hair, and the amount of cadmium deposited in the hair depends on the corresponding blood level at the time of deposition which varies with the poison ingestion time.
- f. Cadmium poisoning is irreversible. There is no antidote or chelation therapy for cadmium poisoning.
- j. Ayurvedic drugs do not contain cadmium.
- k. The possibility of cadmium contamination interfering with the presence of cadmium in hair samples is remote as the MSDS data of Wahl Clipper oil which only contains white mineral oil with no chance for the presence of cadmium or any other metallic toxic components. The possibility of cadmium contamination in body massage oils is ruled out as per the data given for organic oil compositions of natural organic medicines extracted from medicinal plants marketed as ayurvedic drugs, only contain organic essential oils with no chance for the presence of cadmium or any other metallic toxic components.

#### **5. Cause of death appears to be intricately linked with Cadmium poisoning:**

- a. **The abnormally high levels of cadmium found in Swami Prabhupada's hair relic samples to the extent of 284 times beyond normal human threshold limits must have led to endothelium damage that appears to**

have caused both cardio-toxicity and neurotoxicity, resulting in slow deterioration to death.

- b. From a Pharmaco-Pathological point of view, it is further inferred that Srila Prabhupada appears to have been given food admixed metallic poisons intermittently, the primary toxin being cadmium, which appears to be the root cause of cadmium ingestion orally that led to his death.

## **6. MEDICO-LEGAL ASSESSMENT OF THE FACTS INCLUDING NAA REPORTS:**

- 6.1 Cadmium chloride can easily be administered through food, drink, or medicine without arousing any suspicion.
- 6.2 Cadmium is highly toxic, and the onset of signs and symptoms is gradual, resembling that of natural illness.
- 6.3 Cadmium is easily accessible in the chemistry laboratories of high schools and colleges, or from local grocery stores as pesticides.
- 6.4 Evidence of NAA analysis reveals slow poisoning with heavy metals, primarily the cadmium, the effects of which mimic the symptoms of diabetes and kidney disease thus not arousing the suspicion of poisoning, especially when administered in low dosages for about 18 months, combined with heavy doses intermittently.
- 6.5 Cadmium and Arsenic are "masquerade" poisons which are not detectable in routine tests. Chronic cadmium or arsenic poisoning cause physiological conditions which are typical of old age and, therefore, arouse little or no suspicion and the condition of the patient is similar to that of a person suffering with chronic starvation.
- 6.6 The NAA hair tests and medical history of Srila Prabhupada show that the poisoning was chronic for about 18 months.
- 6.7 Srila Prabhupada's poisoners would necessarily have been close attendants to the victim to administer the periodic doses of cadmium. A trusted servant would be the only one with access to carry out a clandestine tainting of food or drink with poison, which Srila Prabhupada ingested without any suspicion.
- 6.8 Because it was not a one-time poisoning, the hair tests and history of the physical symptoms showing that cadmium was ingested from as early as May 1976 up to November 1977, or 18 months, namely in a chronic manner, the poisoners would need regular access to Srila Prabhupada, and that would rule out any outsiders.

- 6.9 The type of poisoning that Srila Prabhupada endured narrowed the possible identity of the poisoners to those who were regularly staying around Srila Prabhupada, especially after the severe February, 1977 health decline.**
- 6.10 Cadmium would produce health debilitation slowly, and that would include starvation syndrome, which is found in Srila Prabhupada's health history in 1976-1977. Small doses of poisoning result in malaise, increased weakness, and a reduction in the body's general strength. The first significant dose appears to have been administered on 20th July 1976, when Srila Prabhupada became extremely ill, and then again on 26th February 1977, coinciding with the serious health crises of Srila Prabhupada.**
- 6.11 Srila Prabhupada's health profile with signs and symptoms are fully compatible with cadmium poisoning.**
- 6.12 A sprinkle of colourless, tasteless, and odourless cadmium powder would go unnoticed and could produce a severe downturn in health. Cadmium is potently poisonous.**
- 6.13 The nature and progressive history of Srila Prabhupada's declining health in his last year, with ups and downs and plateau periods, and sudden onsets of worsening, suggests a scenario of a steady use of "maintenance" poisoning punctuated by periodic and more intense doses. This comprises a mixed regimen of mid-level chronic, more acute poisoning and slow poisoning.**
- 6.14 The constant anaemia, lack of appetite, no taste for food, and muscle weakness that is chronicled in Srila Prabhupada's health history was a result of a continuous episode of chronic poisoning, enough to produce effects of "starvation symptoms".**
- 6.15 Srila Prabhupada gradually lost weight and became progressively weaker, primarily due to his inability to eat or digest food and had no taste or appetite as cadmium is a craving poison which appears to have exhibited towards his end stage of life.**

**The cumulative considerations of all the above aspects indicate the cause of death to be due to homicidal poisoning by cadmium.**

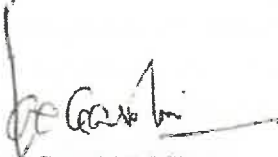
- 6.16 Srila Prabhupada's hair tests indicate sustained high-level ingestion for about 18 months. It is virtually impossible to accumulate such levels from a normal environment of soil, air, water, food, consumer products, massage oils, hair clipper oil, or ayurvedic medicines.**
- 6.17 It is impossible to scientifically explain Srila Prabhupada's levels of cadmium as the result of accidental exposure to the above listed sources or**

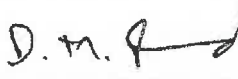
tainted consumer products. Hence, this cannot be a case of Chronic Accidental Death due to Cadmium Poisoning.


## **7. OPINION OF THE EXPERT COMMITTEE:**

- 7.1 The members of the Experts' Committee, have been of the opinion that the cause and manner of death of Srila Prabhupada was the result of a well-planned homicide by using the toxic metallic poisons, mainly cadmium and interspersed with arsenic and antimony, without arousing any suspicion, that caused the resultant signs and symptoms mimicking that of natural chronic illness.
- 7.2 They were of the further opinion that the high levels of cadmium administered to Swami Srila Prabhupada in the last stage of his life and circumstances prevailed thereof were sufficient to cause his death in such a manner.

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