

Nagarjuna Road,  
Kakinada - 533 003.  
India,  
Phone : 2360390  
Fax : 0884 - 2362084/2365020  
CIN : L24129AP2006PLC076238



NFCL/ENV/APPCCB/HWR/01/2016

10<sup>th</sup> June 2016

To,  
Member Secretary,  
A.P. Pollution Control Board,  
Paryavarana Bhavan,  
A-3, I.E., Sanath Nagar,  
Hyderabad – 500 018.

Dear Sir,

**Subject : Submission of Annual Returns, regarding Hazardous Waste disposal**

Sir,

With reference to your directives, the Hazardous Waste Disposal Report for the period April 2015 – March 2016 is being forwarded in the prescribed format, Form-4 along with necessary annexures.

Thanking you

Yours Sincerely  
for NAGARJUNA FERTILIZERS AND CHEMICALS LIMITED

  
**G V S Anand**  
Senior General Manager (Operations)

Encl: a/a

Cc: Environmental Engineer,  
A.P. Pollution Control Board,  
2-532, Santhi Nagar,  
Ramanaiyah Peta,  
Kakinada.

Cc: Joint Chief Environmental Engineer,  
APPCCB, Zonal Office,  
Behind RTA Office, Madhavadhara,  
VUDA Colony,  
Visakhapatnam – 530 018.

Regd. Off : Nagarjuna Hills, HYDERABAD - 500 082, India.

**FORM 4**  
[See rules 5(6) and 22(2)]

**FORM FOR FILLING ANNUAL RETURNS  
BY THE OCCUPIER OR OPERATOR OF FACILITY**

[To be submitted by occupier/operator of disposal facility to State Pollution Control Board/Pollution Control Committee by 30<sup>th</sup> June of every year for the preceding period April to March]

1.	Name and address of the generator/operator of facility	<b>Nagarjuna Fertilizers &amp; Chemicals Limited,</b> Nagarjuna Road Kakinada - 533003	
2.	Name of the authorized person and full address with telephone and fax number	<b>Shri G V S Anand,</b> Senior General Manager (Operations) NFCL, Kakinada - 533003 Phone No. 0884 2360006, Fax No. 0884 2362084	
3.	Description of hazardous waste	For details please refer Annexure - A	
		Spent LT catalyst:	87.912 MT
		Used Oil:	21.595 MT
		CDR Plant Reclamation Waste:	9.67 MT
		Detoxified Containers:	496 Nos.
5.	Description of Storage	For details please refer Annexure - A	
6.	Description of Treatment	Our Hazardous Wastes are being sold / disposed to vendors authorized by SPCB/CPCB only. Hence it is not applicable to us.	
7.	Details of transportation	Hazardous Wastes are transported, exclusively, by the vendor either by truck / tanker.	
8.	Details of disposal of hazardous waste	For details please refer Annexure - A	
9.	Quantity of useful materials sent back to the manufacturers* and others#	Name and type of material sent back to	Quantity in Tonnes / KL
		Manufacturers	Nil
		Others# (Recyclers)	For details please refer Annexure - B

# enclose list of other agencies

Date: 10.06.2016

Place: Kakinada

Signature: 

Designation: Sr. General Manager (O)

### Description of Hazardous Waste & Storage

Sl. No.	Material	Physical Form	Chemical Form
1	Spent Hydrogenator catalyst	Solid	Nickel Oxide: 2 - 3 %, Molybdenum Oxide - 10 %, balance Aluminium Oxide. Cobalt Oxide: 3 - 4%, Molybdenum Tri Oxide – 14 %, balance Aluminium Oxide.
2	Spent HT catalyst	Solid	Iron Oxide: 85 - 90%, balance Chromium Oxide and Copper Oxide
3	Spent ZnO catalyst	Solid	Zinc Oxide: 99%
4	Used Oil	Liquid	Petroleum fractions
5	Spent Activated Carbon	Solid	Carbon
6	CDR Reclamation waste	Slurry	Amine Based

**Spent Catalyst:** The catalyst removed from any of the processes is oxidized completely. This reduces the risk of fire hazard. The spent catalyst is then packed in the drums containing impervious lining and clearly labeled as “Spent Catalyst - Hazardous”. The spent catalyst drums are stored in covered, protected and earmarked area and sold / disposed to the SPCB and CPCB authorized vendors only.

**CDR Reclamation Waste:** In the Carbon Di Oxide Recovery plant, KS1 solution is used as absorbing media. SO<sub>2</sub> and NO<sub>x</sub> in the flue gas react with the KS-1 solution and form Heat Stable Salts (HSS). When the HSS content in the solution reaches to the maximum limit, HSS can be removed by Caustic reclamation. CDR Reclamation Waste is stored in dedicated tank and disposed to APPCB authorized CWMP.

**Spent Activated Carbon:** Activated carbon is used in Ammonia plant I & II, CDR Plant and in DM plant. In ammonia process, the activated carbon is used to purify K<sub>2</sub>CO<sub>3</sub> solution whereas in CDR Plant, the activated carbon is used to purify KS1 Solution. In DM plant, activated carbon is used for the physical adsorption of chlorine and organic matter from the water. The activated carbon removed from the above processes is packed in containers with proper lining. The containers are labeled prominently and stored in a well-marked, covered and protected area and disposed to APPCB authorized cement industry.

**Used / Waste Oil:** In the complex, oils are being used mainly for lubrication purposes. In the process plants, the lubricating oils are centrifuged and reused in the process, hence quantity of waste oils generated is less when compared to the quantities in use. The waste oils generated from the process plants are reused in the bagging plant area for the lubrication of stitching thread. The used oil is also applied as protective film to the steel material stored open in steel yard balance. Waste oil is being disposed to oil recyclers authorised by APPCB and CPCB.

## Annexure - B

<b>Hazardous Wastes sold / disposed from NFCL, Kakinada during 2015-16</b>					
<b>Name and type of material sold to others (Recyclers authorized by SPCB and CPCB)</b>					
<b>Sl. No.</b>	<b>Material</b>	<b>Type of Material</b>	<b>Quantity (MT)</b>	<b>Vendor Name</b>	<b>Date of transportation</b>
1	Spent Activated Carbon	Solid	15.33	M/s Swarna Syamala Chemicals, Hyderabad	25.08.15
2	Spent LT catalyst	Solid	87.912	M/s Madhu Processors, Bhavnagar, Gujarat	02.09.15 to 08.09.15
3	Used Oil	Liquid	4.5	M/s Khawja Petroleums Pvt. Ltd., Bangarpet	01.12.2015
4	Used Oil	Liquid	17.095	M/s Reliance Barrel Supply Company	05.03.2016
5	Detoxified Containers	MS	378 Nos.	M/s Madhu Processors, Bhavnagar, Gujarat	02.09.15 to 08.09.15
6	Detoxified Containers	MS	24 Nos.	M/s Khawja Petroleums Pvt. Ltd., Bangarpet	01.12.2015
7	Detoxified Containers	MS	94 Nos.	M/s Reliance Barrel Supply Company	05.03.2016
<b>Name and type of material disposed to others (Authorized by APPCB and CPCB)</b>					
1	CDR Reclamation waste	Slurry	5.415	M/s CWMP, Vizag.	14.10.2015
2	CDR Reclamation waste	Slurry	4.255	M/s CWMP, Vizag.	21.03.2016