



FISHING INDUSTRY

APPA REVIEW

BACKGROUND

- DEAT / DEA together with DEA&DP was involved in the APPA review process in various industries (refineries, iron and steel, cement manufacture etc).
- Fish meal processing in SA is endemic to the Western Cape.
- This was not classified as a national APPA review project and was addressed as a local initiative between DEA, DEA&DP, industry, District and Local Authorities, and the community.
- Opportunities: Capacity building; and addressing licensing and complaints issues.

FISHING INDUSTRY

- Most of the factories have been located in these areas for more than 50 years.
- They were once the most prominent economic drivers in these areas. In most areas this has been superseded by tourism.
- These areas were once remote but has now become sought after for coastal residential developments. (Britannia Bay, Shelley Point etc)

Legislative Requirements

- Activity 69 of the Atmospheric Pollution Prevention Act (Act 45 of 1965)
- Animal rendering process: Process for the rendering, cooking, drying, dehydrating, digesting, evaporating or protein concentrating of any animal matter not intended for human consumption.
- The following types of meal is produced:
 - Fish Meal
 - Ostrich Meal
 - Chicken Meal
 - Feather Meal
 - Mixed Meal (low grade)
 - Blood Meal

DRAFTING OF THE RC

- ⦿ A meeting was held with all the companies in the sector and they were asked to submit an application for a RC.
- ⦿ These applications had to include a EMP
- ⦿ A task team was compiled with representatives from Local, District / Metropolitan municipalities and the Province
- ⦿ A meeting with the facility management was as well as a site inspection of each premises was done

DRAFTING OF THE RC (CONT)

- Applications were evaluated and amendments made to both application forms and EMP's
- The initial permits were drafted and were sent to the companies as well as the various authorities for comment.

PROBLEMS AND OBSTACLES

- Most of these facilities were established prior to the commencement of APPA, ECA.
- The information provided by the companies were inaccurate
- The APPA RC's held by some of these companies had no indication of permitted volumes.
- These plants were materially extended within the last few years (but it is difficult to prove)
- Municipal officials were unsure of their roles and responsibilities and the municipal processes in terms of the licensing function

CAPACITY BUILDING INSPECTION



**AIR QUALITY RATING
OF METROS AND DISTRICT MUNICIPALITIES
IN SOUTH AFRICA**

Poor

Potentially Poor

Legend

- Major Town
- Provincial Boundary

Air Quality Rating

- Acceptable
- Potentially poor
- Poor

Scale: 0 to 200 km. Date: 1994, 04/25/04. Source: Department of Environmental Affairs and Tourism.

Poor

Potentially Poor



EDEN DISTRICT MUNICIPALITY



EDEN DISTRICT MUNICIPALITY



CITY OF CAPE TOWN



WEST COAST



OVERBERG



Fish meal processing companies in the Western Cape

	Company Name	Activity	Area
1	Pioneer fishing t/a Oranjevis	Fish canning / fish meal processing	WCDM
2	Hannasbaai Fishing*	Abalone farming /fish meal processing	WCDM
3	Marine Products	Fish canning / fish meal processing	WCDM
4	Southern Sea Fishing (closed down)	Fish canning / fish meal processing	WCDM
5	Oceana Brands (St. Helena Bay)	Fish canning / fish meal processing	WCDM
6	West Point Fish Processing	Fish canning / fish meal processing	WCDM
7	Suidkaap Meul*	Ostrich/ fish meal processing	EDEN
8	Oceana Brands (Hout Bay)	Fish canning / fish meal processing	COCT
9	I & J (V&A Waterfront)	Fish canning / fish meal processing	COCT
10	Gansbaai Marine	Fish canning / fish meal	ODM

FISH MEAL PROCESS



POLLUTANT RELEASES

- ◉ Dimethylamine
- ◉ Trimethylamine
- ◉ Mercaptans
- ◉ Hydrogen Sulphide
- ◉ Formaldehyde
- ◉ Particulate Matter

OFFLOADING AND PUMPING TO FISH PITS



FISH IN STORAGE PITS (FRESH)



Fish in storage pits (+30 hours)



WARNING ON FISH PITS

FISHMEAL PITS

- HYDROGEN SULPHIDE (H₂S)

- ❖ Various levels depending on the rotten fish
- ❖ Cannot see it but you can smell it

- HEALTH HAZARD

- Central nervous System, Eyes, Respiratory System

- PROTECTION

- **Wear:** Oil Skin, mask, Gumboots & eye protection



SCREW CONVEYOR



FISH COOKER (OLDER)



FISH COOKER (NEWER)



Fish oil collection units



Dryer



INSIDE OF DRYER



EMISSIONS THROUGH CHIMNEY STACKS



PROCESS EFFLUENT DISCHARGED TO SEA



OSTRICH MEAL PRIOR TO MILLING



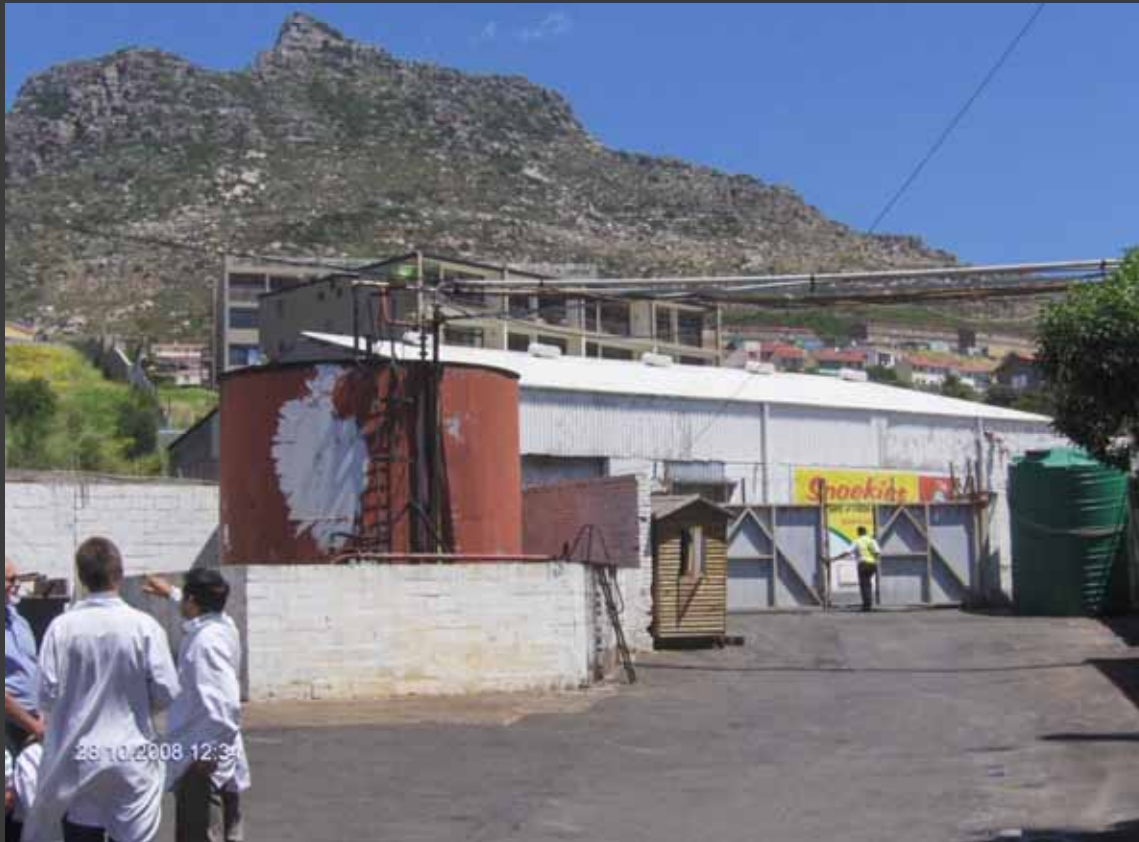
FISH MEAL FINAL PRODUCT



OSTRICH MEAL



RESIDENTIAL DEVELOPMENT WITHIN 50 M OF FACTORY



FISH FACTORY FROM FLAT



RESIDENTIAL DEVELOPMENT ON FACTORY BOUNDARY



CHIMNEY STACK AND FLAT BALCONY AT THE SAME HEIGHT



SHELLEY POINT



CONCLUSION

- It is with concern that the animal rendering process has been excluded from being a listed activity in terms of NEM:AQA.

● THANK YOU