120905 pcwaste

ENVIRONMENTAL ADMINISTRATIVE ENFORCEMENT TOOLS:

The administrative enforcement process involves the issuing of a legal instrument to the person who is not complying with the law. This process must comply with the Promotion of Administrative Justice Act and the enforcement authorities are therefore usually required to issue a pre-notice which states the authority's intention to issue a notice / directive and provides the recipient of the notice with an opportunity to make representations as to why a final notice should not be issued. It is only after these representations are considered that a decision will be made on whether or not to issue the notice and the instructions to be contained therein. Once a notice is issued, the recipient is bound by the instructions (subject to appeal / objection processes) and it is s criminal offence should they fail to comply with the instructions.

Administrative Tool	Trigger to issue notice
National Environmental Management Act Compliance notice S31L	Reasonable suspicion that provision of law / condition of authorization breached
Environment Conservation Act S31A directive	Opinion that serious harm has been or will be caused to environment
National Environmental Management Act S28(4) directive	• Significant harm has or will be caused to the environment AND • Failure to take reasonable measures

The least preferred (and therefore used) enforcement tool is the directive in terms of section 28(4) of NEMA. This is because it is not only necessary to be satisfied that the activity in relation to which you are taking action is or will cause significant harm but you must also be satisfied that the person is failing to take reasonable measures to address this harm. This often leads to a protracted engagement (between the authorities and the person causing the harm) in relation to whether or not certain measures are reasonable before enforcement action can be taken.

If the authority is of the view that the person is taking reasonable measures to address the harm then this means that a section 28(4) directive cannot be issued (requiring them to take the measures). As a directive would not have been issued, if the person does not complete the measures within a certain timeframe or deviate from the measures, the administrative enforcement process would then start afresh with the issuing of a pre-notice. As no final notice is in place, failure to undertake the measures would not constitute an offence.

Below are two examples of real cases (usually the larger more complicated facilities) we have dealt with where section 28 NEMA has proven to be a challenge. The amendment proposed to section 28 NEMA will bring it more in line with the section 31A ECA directive (which is due to be repealed) and although section 28(1) will still require a person to comply with the duty of care (ie. to take

reasonable measures to avoid or minimize significant harm to the environment), the amended section 27(4) will enable the authorities to issue a directive in the event that significant harm is being or has the potential to cause significant harm even if the person is taking reasonable measures.

STEEL COMPANY

In November 2007, Environmental Management Inspectors ("EMIs") conducted a compliance inspection at the facility which included findings pertaining to lack of adequate monitoring, air emission exceedances, the undertaking of unauthorised scheduled processes, exceedances in relation to production and use of raw materials, Record of Decision conditions' contraventions, unauthorised waste disposal sites and environmentally harmful activities that could be prevented / rehabilitated.

The inspection report was issued to the facility and they responded explaining that the fugitive dust emissions originate from the charging of the Shaking Ladle and Basic Oxygen Furnaces and those emissions are contained within the building and extracted through the IST bag Filter. Reference was also made to agreements with previous DEA representatives in relation to emission limits and equipment availability and that a medium to long term refurbishment programme has commenced to improve the availability of the equipment. They also advised that issues pertaining to surface and groundwater as well as soil contamination will be addressed as part of their Integrated Waste and Water Management Plan application submitted to the DWA. All necessary applications had been submitted to the relevant authorities.

A follow-up inspection was conducted to the iron and steel plants a year later to ensure that the facility was meeting timeframes and those environmental impacts, particularly related to air emissions, were being systematically reduced and effectively managed. After conducting the inspection, an enforcement strategy was drafted by the Directorate: Enforcement as the authorities were not satisfied with the conditions on site and continuous complaints were being received regarding significant emissions emanating from the facility's operations. During the inspection it was found that one Iron plant was old and was in the process of being upgraded and fugitive dust emissions were emanating from the kilns and the kiln area was extremely dusty with wind blowing dust causing a nuisance. Even though the plant was not running under upset conditions continuous emissions from the emergency by-pass / raw gas outlets were observed and significant emissions were observed during the tapping process. The team observed a significant source of fugitive dust emissions from the raw material storage area and a significant amount of fugitive dust emissions was also observed emanating from the building as a result of charging the Shaking Ladle and Basic Oxygen Furnaces at the Steel Plant. Fugitive dust emissions were also seen to be problematic at the stockyard at the structural mills, although the facility was in the process of implementing a programme to determine the sources of dust pollution.

It was decided to issue the facility with a pre-directive which informed the facility that it was the Department's opinion that serious harm was being caused to the environment, that reasonable measures were not being taken to address this harm and the facility was given an opportunity to provide reasons why the department should not instruct it to submit a detailed plan on how the facility intends to mitigate / reduce process and fugitive emissions from its operations and should the Department not approve the plan, the facility must cease with operations within one month of receipt of the final directives. The facility (in response to the pre-directive) submitted a proposed

plan which was amended a few times in line with the department's concerns and the department was of the view that the amended plan reflected reasonable measures (in effect the legal basis for a s28 directive).

However, based on the emission monitoring information received 6 months, exceedances were still an ongoing occurrence and an additional pre-directive was issued to the facility. In response to this the facility provided a more in-depth action plan with more short term measures which would require improvement in a much shorter space of time. Based on the fact that this plan appeared reasonable, the basis for a s28 NEMA directive did not exist.

A review of the information recently submitted, shows that the facility has failed to meet some of the proposed timeframes. If a directive has been issued that incorporated the action plan, failure to meet these timeframes would have resulted in a criminal sanction. However, we now need to take further steps in the administrative enforcement process prior to reaching the point where the facility is failing to comply with instructions in a directive.

REFINERY

This particular company operates a crude oil refinery which, due to the nature of the facility, has the potential to cause an impact on the environment, including on the health and wellbeing of human receptors.

This particular facility has recorded a series of emergency incidents over the last eight years, some of which are listed below, with the most recent taking place in April 2012:

- A release of steam and hydrocarbon to atmosphere and smoky flare - October 2004.
- An oil release into the storm water canal that occurred in December 2004.
- A fire at tank X202 in January 2005.
- A release of approximately 15 tons of FCCU catalyst (Aluminium silicate) that occurred in December 2005.
- A fire at the Vacuum Unit in April 2006.
- A release of black smoke and FCCU catalyst (Aluminium silicate) in October 2006.
- A fire on the Alkylation Unit in July 2007.
- A release of steam and catalyst fines from the CO boiler, that combusts flue gas from the Fluidized Catalytic Cracker Unit in November 2007.
- A fire at Tank X104 in November 2007.
- A series of explosions in the oily water sewer along Railroad Avenue that occurred in March 2008.
- A leak on the underground line conveying naphtha to the Reformer Unit that was discovered in July 2008.
- Thirteen ambient 10-minute SO2 exceedences at Settlers School during September 2008.
- A fire on the hot circuit crude pump on the Crude Unit at North complex that occurred in November 2008.
- A spill at Exchanger E2023 Pressure Safety Valve Bleeder in March 2010.
- A flaring incident and release of stormwater to the Badulla canal in March 2011.
- The release of a crude oil mist and a fire in October 2011.

- A fine oil spray in April 2012.

The community adjacent to the refinery has, on numerous occasions, expressed their concern about the impact that these emergency incidents are having on their health and wellbeing, as well as the environment.

It is important to note that all these incidents took place in different parts of the facility and there is not particular area or problem that can be blamed for these ongoing incidents. Late last year the authorities issued the facility with a pre-directive indicating to them that these ongoing incidents were causing serious harm to the environment (at least in terms of residents' well-being) and reasonable measures were not being taken to address this. In response to the pre-directive, the facility indicated the following:

- It has a formal and ongoing routine maintenance and inspection process that meets international engineering standards;
- Appropriate annual maintenance budget is provided and equipment and facilities are repaired / replaced as and when required;
- Monitoring stations monitor continuous ambient air quality and legal standards have not been contravened;
- It has a 24hr call centre that handles reports and complaints and these are discussed with the authorities on a monthly, quarterly and annual basis;
- It has the following ongoing and long term programmes in place:
    - Overall equipment reliability strategy with specific focus on high criticality equipment;
    - Rotating equipment and electrical reliability programme;
    - Piping integrity inspection and replacement programme;
    - Storage tank refurbishment programme;
    - Risk based inspection programme for pressure vessels;
    - Asset life study;
    - Management of disruptions and outages caused by external power suppliers; and
    - Review of plant process control management systems.
- It has a consolidated refinery sustainability and transformation programme, including production systems and procedures improvement; technical capability building and skills transfer; allocation of more than two thirds of capital budget to reliability and HSE projects; increased budget spending to reduce risk; strict legal compliance with MHI regulations and full compliance with all legal requirements and permits.
- Continuous improvement programme, including programmes to reduce emissions, to detect leaks and to manage stormwater.

Specifically in relation to section 28(3) of NEMA the facility has responded as follows:

(9) With regard to the assertion that no reasonable measures have been put in place by the Refinery we would like to place the following on record, in relation to the measures referred to in section 28(3) of NEMA:

(a) **Investigation, assessment and evaluation of the impact on the environment.** The Refinery is a fully certified ISO 14001 company. It is part of the ISO 14001 process to ensure that every environmental impact is identified and assessed. Moreover the Refinery is linked to all the surround[redacted] air monitoring stations with online alarms to all environmental and operational management staff for immediate action to be taken: should these record any increase in ambient air concentrations, whether as a result of the Refinery or other activities. Besides its own emissions monitoring the Refinery also has in place an extensive monitoring system for effluent as well as waste and various dedicated and professional staff members to ensure quality control on these;

(b) **Information and education of employees about the environmental risks of their work and the manner in which their tasks must be performed in order to avoid causing significant pollution or degradation of the environment.** The Refinery complies with all relevant occupational health requirements in relation to its staff, who work in areas of possible acute exposure. In addition the Refinery has the following in place:

(i) Programme for health risk assessments;

(ii) Hazardous Exposure Identification & Management;

(iii) Certifying employees fit to work; and

(iv) Various educational campaigns are in place to educate staff on safe environmental practice. These include but are not limited to:

(A) Toolbox talks;

(B) An Environmental Staff member assigned to each of the five operating areas;

(C) Articles in various Refinery communications; and

(D) Environmental Fundamentals training is included in the training syllabus for all operational staff. In this regard it is not possible to progress to the Process Control Centre unless the environmental modular instruction training has been completed.

The Refinery has had a reduced number of reportable occupational injuries and diseases and has for some time been awarded substantial rebates in recognition of reduced injury rates.

(c) **Cessation, modification, control of activities or processes causing pollution or degradation.** The Refinery has in place an Environmental Management Plan which is presented to authorities every year and against which capital projects for environmental improvement are measured;

(d) **Containment or prevention of the movement of pollutants or the causant of degradation.** Here the Refinery has already undertaken extensive work on for instance the storm water impoundment pond systems, bunding, effluent treatment plant construction and sulphur recovery units;

(e) **Elimination of any source of pollution or degradation.** The Refinery has substituted fuel oil with methane rich gas and fuel gas at a significantly increased cost to reduce SOx emissions; or

(f) **Remediation of the effects of pollution.** The Refinery has always remedied the effects of all incidents and will do so in relation to the October 2011 fire.

Despite all these measures which must be deemed to be reasonable, emergency incidents at the Refinery still continue to occur on a fairly regular basis and the authorities intend to instruct the facility to appoint an independent specialist to undertake a Risk and Integrity Assessment of the Refinery for purposes of identifying areas where emergency incidents could occur and review the current measures that the facility is taking to prevent these. This specialist would also be tasked to develop a plan of action based on his/her findings.

These instructions are being challenged by the refinery which is maintaining that the legal basis for issuing a section 28 directive does not exist, given the fact that the facility is taking reasonable measures. It is likely that we would therefore rather issue a section 31A directive (which only requires us to demonstrate that serious harm may be caused) but note that this section is due to be repealed.