

ILLINOIS POLLUTION CONTROL BOARD  
June 20, 1991

ILLINOIS ENVIRONMENTAL	)	
PROTECTION AGENCY,	)	
	)	
Complainant,	)	
	)	AC 90-36
v.	)	(IEPA 192-90-AC)
	)	(Administrative Citation)
	)	
ESG WATTS, INC.,	)	
a foreign corporation,	)	
	)	
Respondent.	)	

MR. WILLIAM SELTZER APPEARED FOR COMPLAINANT.

MR. THOMAS J. IMMEL OF IMMEL, ZELLE, OGREN, MC CLAIN & COSTELLO APPEARED FOR RESPONDENT.

OPINION AND ORDER OF THE BOARD (by J. C. Marlin):

This matter is before the Board upon a four-count administrative citation filed May 7, 1990 by the Illinois Environmental Protection Agency ("Agency"). The citation alleges that ESG Watts, Inc., ("ESG") violated the provisions of the Illinois Environmental Protection Act ("Act") by allowing uncovered refuse to remain from a previous operating day; by conducting a sanitary landfill operation in a manner which results in leachate flow entering waters of the State and which results in leachate flows exiting the landfill confines; and, by failing to submit reports required by permits or Board regulations. Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1021(p)(2), (p)(3), (p)(5) and (p)(11). The Respondent filed a timely Petition for Review.

Hearing was held in this matter on August 22, 1990 at the Illinois Environmental Protection Agency, 2200 Churchill Road, Springfield, Illinois. Mr. John Richardson and Mr. Tim Zook testified on behalf of the Agency. Mr. Michael Rapps and Mr. Leonard Foulks testified on behalf of the Respondent. No members of the public commented or testified. Closing arguments were made by both parties in lieu of filing briefs.

BACKGROUND

ESG is the present operator of a landfill located in Sangamon County, Illinois under permit No. 1980-23-OP, designated with Site Code No. 1678220037 and is commonly known as the Sangamon County Landfill. On March 7, 1990 Agency inspector John P. Richardson inspected the landfill. A copy of his inspection

report was filed with the citation. On the basis of his direct observation the Agency determined that ESG violated the Act in the manner set forth in the citation. Respondent seeks a civil penalty of \$500.00 for each of four violations for a total of \$2,000, plus the imposition of hearing costs incurred by the Board and the Agency.

APPLICABLE LAW

Section 21(q) of the Act states:

No person shall in violation of subdivision (a) of Section 21, conduct a sanitary landfill operation which is required to have a permit under subsection (d) of this Section, in a manner which results in any of the following conditions:

. . .

2. leachate flows entering waters of the State;
3. leachate flows exiting the landfill confines (as determined by the boundaries established for the landfill by permit issued by the Agency);

. . .

5. uncovered refuse remaining from any previous operating day or at the conclusion of any operating day, unless authorized by permit;

. . .

11. failure to submit reports required by permits or Board regulations;

. . .

Penalties in actions of this type are \$500 for each provision plus any hearing costs incurred by the Board and the Agency. Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1042(b)(4). If the Board finds the violation occurred, it must impose the penalty and costs. If, however, the Board finds that the violation resulted from uncontrollable circumstances, the Board imposes no penalty and makes no finding of violation. Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1031.1(d)(2).

DISCUSSION

The Agency alleges that ESG violated the Act in four

distinct manners. First, that the on-site inspection revealed uncovered refuse remaining from a previous operating day. Second, the landfill operated in a manner resulting in leachate flows entering waters of the State. Third, that such leachate also exited the landfill confines. Fourth, the Respondent failed to submit reports required by permits or Board regulations. ESG stipulated to a violation of the cover requirement at hearing. (R.13,14). It contested, however, the remaining charges.

The first of three remaining charges is that ESG operated the landfill in such a manner as to result in the flow of leachate to waters of the State.\* Mr. John Richardson testified on behalf of the Agency. He inspected the facility on March 7, 1990. He testified that there was a large amount of uncovered refuse on the northeast slope of the landfill. At the base of the fill were three ponded areas containing dark liquid. Refuse floated in the water. The liquid foamed as it was pumped into a nearby stream. (R.20)

Mr. Richardson took a number of photographs showing the uncovered refuse, the ponding, the foaming discharge and the stream. (Gr.Exh.A) (R.22-25)\*\* The photos showed erosion channels on the hill and exposed refuse in the erosion channel. (R.26) Richardson testified that the site pumps the water from the ponds at the bottom of the face into an unnamed tributary that transects the site and flows into the Sangamon River. (Id.) Mr. Richardson also observed that the ponded water was dark and turbid. (R.28). The ponds, he testified, were present on each of his visits to the site and, in his opinion, were collecting runoff from the slope of the landfill. (R.32) Richardson testified that Tim Zook of the Agency collected samples of effluent from the pump outfall, a point upstream of the outfall and a point downstream. (R.37)

Mr. Richardson admitted that tests must be performed on the liquid to determine whether it contained some constituent which had been removed from the refuse. Under the present regulation,

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\* The term "leachate" is defined in Board regulations as "liquid containing materials removed from solid waste" (35 Ill. Adm. Code 807.104). The Agency and Respondent concur that this definition is the one applicable to the charged violation and in effect on the date of the alleged violation. The Board regulation was admitted as Exh.3. The proposed definition pending at the time in R88-7 was admitted as Exh.4.

\*\* The Respondent objected to the admission of a number of photographs of the site on the basis of their relevance. After review of these photographs the Board finds they meet the test of relevant evidence found in Board procedural rules. 35 Ill. Adm. Code 103.204

the liquid coming in contact with solid waste in and of itself would not render the liquid a leachate. (R.64-65) Mr. Richardson also admitted that both the site and the ponded areas were muddy and shallow. (R.69)

Mr. Tim Zook of the field operations section of the Water Pollution Office of the Agency also testified. On March 7, 1990 he collected samples from the Sangamon County landfill. He sampled the pump outfall effluent and the receiving stream which runs to the Sangamon River from the site. (R.94-95) For the stream samples he used a point 80 yards upstream at the property line and three hundred yards downstream, also at the property line. These samples were analyzed by an IEPA lab in Champaign, he testified. The results were submitted as Exhibit D. (R.96)

The samples exhibited different readings for the individual parameters depending on location, he stated. (R.107) Total dissolved solids registered 542 parts per million (ppm) upstream as compared to 1,970 ppm at the effluent or outfall measurement. At the outfall, biochemical five-day oxygen demand (BOD<sub>5</sub>) was 580 ppm while upstream it was one. The downstream sample showed 95 ppm. (R.108) For iron, the effluent reading was 7,852 micrograms per liter ug/l and upstream 198 ug/l. For manganese the effluent level was 2,624 ug/l and upstream 313 ug/l. In his opinion, the increases in the receiving stream were caused by the effluent discharge. (R.112)

Mr. Zook admitted that all of the parameters mentioned are not unique to the constituents of landfills. (R.116) He also admitted that water which runs over disturbed earth may exhibit increased readings of BOD<sub>5</sub> and suspended solids. He also conceded that the samples he took did not exhibit evident odor. (R.119)

Mr. Michael Rapps of Rapps Engineering and Applied Science of Springfield, Illinois testified on behalf of the Respondent. Concerning the question of whether the liquid observed by the Agency constitutes leachate, he testified that an article on the statistical composition of landfill leachates observed in Illinois published by T. Clark and R. Piskin (Exh.6) found that landfill leachate is typically red to orangish-red, odiferous and having a sheen on it. (R.136-139) In his opinion, water which ponds after running down surface slopes having exposed refuse is not leachate. (R.138) Rapps also testified that plasticizers were present at the site and remained from a gunpowder plant. Plasticides are a dark, oily looking substance, he stated.

Rapps further testified that the base material of the landfill is limestone, coal and shale. These materials, if disturbed he stated, could mineralize water passing through them and would lead to higher readings of total dissolved solids, manganese and iron. (R.143) Mr. Rapps testified that he looked

at the Agency's analytical reports and could not say if it was leachate. He did state that if it was leachate, it fell outside the norm. The average total dissolved solids as reported by authors Clark and Piskin is 10 times that observed at the site. (R.145) Rapps also testified that the COD and BOD<sub>5</sub> measurements were equal, meaning that the oxygen demand supplied by the effluent was not biological but chemical, thereby indicating that the oxygen demand "was not a bacteriological thing." Rapps also looked at the ratio of iron to chloride, sulfates, sodium, calcium, etc found in the effluent and that reported in the article exhibit. He stated there was "no comparison." The ratio of iron to chlorides in the effluent was .012 while in the leachate literature it was 0.9. He testified that this was true of all the ratios he looked at. (R.147) Finally, Mr. Rapps testified that he examined the photos submitted by the Agency and concluded that the liquid they were observing was stormwater, not leachate. (R.148)

On examination by the Agency Mr. Rapps admitted that water running off exposed refuse would have lower levels of contaminants than that in the Clark and Piskin report. Mr. Rapps testified, though, that this would be "a different definition of leachate than the Agency historically used." (R.154-155) Rapps did, however, admit that the contaminants shown in the effluent were likely picked up at the base of the mound. (R.158) Rapps also admitted that the refuse observed in Agency photos in the ponded water could "produce leachate as defined by Board regulations." (R.163-164)

Mr. Leonard Foulks, site-manager/operator of the Sangamon Valley Landfill also testified on behalf of the Respondent concerning the leachate issue. Foulks testified that the facility pumps ponded rainwater to a stream. A sample of the discharge is taken to a lab. The lab is to inform them if the discharge cannot be made. Foulks testified that he has never been told by the lab not to discharge. (R.177,185)

Finally, the Agency alleges that ESG failed to file reports required by permit or Board rules. Mr. Richardson testified that ESG is required to submit reports to the Agency concerning its composting operations. The permittee was to first report data gathered from the effective date of the permit through March 1, 1989 on or before April 1, 1989 and thereafter, annually. (R.44-45, 51-52) The required information, he testified, is set forth in paragraphs 12(a)-(g) of the facility's Supplemental Experimental Permit. (Exh.B) Mr. Richardson testified that ESG did not submit this information, rather Capital Area Clean Community System, Inc. ("CACC") did. CACC submitted a letter dated January 6, 1989 to the Agency which states that it was "to keep you informed as to the volume of leaves at the ...site" attaching a report given to the Springfield City Council and invited the Agency to contact them should they have any

questions. (Exh.C) This information, he stated, was incomplete. (R.51)

ESG supplied testimony in rebuttal through Mr. Rapps and Mr. Foulk. Mr. Foulk testified that the City of Springfield was the former lessee and operator of the composting program but abandoned the site. The lease was admitted as Exh. 2. Mr. Foulk testified that he did not know who was responsible for submitting reports regarding site operations. (R.178-180)

#### ANALYSIS

The first issue to be resolved by the Board is whether water which runs over exposed refuse and is shown to exhibit high levels of total suspended solids, BOD<sub>5</sub>, iron and manganese is leachate as defined by Board regulations. We find that it is.

Leachate is defined in Board regulations as "a liquid containing materials removed from solid waste." For the Agency to prove a violation of the statute prohibiting the discharge of leachate into the waters of the State or to areas outside the site the Agency must show, by a preponderance of the evidence, that the liquid it tested contained materials removed from solid waste. The Agency has tested the liquid's parameters and found high levels of BOD<sub>5</sub>, total suspended solids, iron and manganese. The Agency has shown that this liquid came from a ponded area beneath an exposed face of refuse. The Agency also elicited testimony that precipitation ran down the face of the exposed area. We believe the Agency's evidence is sufficient to make a prima facie case that the liquid is therefore leachate.

The Respondent has attempted to rebut the Agency's case by two primary means. The Respondent introduced testimony and exhibits on the average composition of leachate in Illinois and demonstrated that the tested parameters do not match the average set forth in the literature. The Respondent also introduced evidence of the present condition and composition of the site and testimony that runoff from the site could produce elevated readings of the tested parameters.

Respondent's theory is that the liquid tested was storm water runoff, not leachate. While this may explain increased mineral content, total dissolved solids and turbidity, we believe that the increase in five-day biochemical oxygen demand is produced by organic constituents. The organic constituents impacting oxygen supply in the liquid more probably than not came from the landfill refuse.

Respondent also argues that as the BOD<sub>5</sub> and COD effluent test readings are equal, the oxygen demand is chemical not biological. The Board finds this a statement to be

scientifically incorrect. Both BOD<sub>5</sub> and COD parameters describe the results of tests for the oxygen demand placed on the tested materials by organic matter. Chemical oxygen demand (COD) is a measure of the oxygen equivalent of the organic matter content of a sample that is susceptible to oxidation by a strong chemical oxidant--an indirect measure of organic material in terms of the amount of oxygen required to completely oxidize it. Five-day biochemical oxygen demand (BOD<sub>5</sub>) measures the amount of oxygen which has been utilized in five days by microorganisms to oxidize organic materials present in the sample.

Nor do we believe that in order to constitute leachate, the parameters tested must approximate a demonstration of the norm. The testimony introduced by Respondent only shows what levels the average leachate in Illinois exhibits. It does not prove that liquids exhibiting different characteristics are not leachate. However, the statistical evidence found in the Clark and Piskin article set forth the ranges for the tested parameters. Our comparison of the tested parameters against those shown in the literature shows that 17 of the 23 tested fall well within the ranges set forth in the Clark and Piskin article. The authors also confess that the composition of leachate in Illinois "is highly variable". (Exh.6, p.11) We are reminded that leachate, as defined in Board regulations, is a liquid containing materials removed from solid waste. We therefore find Respondent's evidence does not rebut the Agency's showing that the liquid present at the site contains materials removed from solid waste.

The evidence adduced at hearing regarding discharge of the liquid into the waters of the State and discharge off-site was unrebutted. ESG argues however that since the off-site discharge was in fact the discharge into the stream the Agency's twin charges were "double-dipping." (R.195) The Agency has admitted that the same act led to the two charges (R.68)

The statute establishes as separate violations the conduct of sanitary landfill operations in a manner which results in (1) leachate flows entering waters of the State; and (2) leachate flows exiting the landfill confines. This recognizes that the harms caused by the violations are separate and distinct. The harm in discharging to waters of the State is in the harm to a State resource. The harm, however, in discharging leachate off-site is that it contaminates property belonging to another person. Both were violated here. Therefore, the Board finds that ESG has violated sections 21(p)(2) and (3) of the Act.

We now turn to whether the Agency has proven a violation of the reporting requirements. By the terms of the supplemental experimental permit the burden was upon the permittee, ESG, to supply the requisite information. The "information" was not supplied by the permittee but by the operator Capital Area Clean Community System, Inc. In closing argument it was argued that

CACC's letter met the permit requirement and that, if it didn't, the Agency had every opportunity to contact the Office of the Mayor of Springfield regarding it but failed to do so. Our review of the letter and the permit leads us to conclude that the information did not meet the list of requirements spelled out by the permit. In fact, what is offered by ESG as proof of compliance is a letter and program summary submitted to another entity. Moreover, the initial report was to contain information regarding site activities through March 1, 1989. The letter is dated nearly two months prior to this date. It does not, therefore, appear to be in response to the permit requirement.

Regarding the claim that the Agency had adequate opportunity to question CACC or ESG about the deficiencies, we do not find an Agency duty to seek out information as Respondent argues. Again, it was the permittee's duty to supply the requisite information. Therefore, after review of the testimony and exhibits we find that ESG has violated Section 21(p)(11) of the Act for its failure to submit required reports.

#### ORDER

1. Respondent is hereby found to have been in violation on March 7, 1990 of Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1021(p)(2), (p)(3), (p)(5) and (p)(11).

2. Within 45 days of this Order Respondent shall, by certified check or money order, pay a civil penalty in the amount of \$2,000 payable to the Illinois Environmental Protection Trust Fund. Such payment shall be sent to:

Illinois Environmental Protection Agency  
Fiscal Service Division  
2200 Churchill Road  
Springfield, Illinois 62706

Respondent shall also place its Federal Employee Identification Number or Social Security Number upon the certified check or money order.

Any such penalty not paid within the time prescribed shall incur interest at the rate set forth in subsection (a) of Section 1003 of the Illinois Income Tax Act, (Ill. Rev. Stat. 1989, ch. 120, par. 10-1003), from the date payment is due until the date payment is received. Interest shall not accrue during the pendency of an appeal, during which payment of the penalty is stayed.

3. Docket A in this matter is hereby closed.

4. Within 30 days of this Order, the Agency shall file a statement of its hearing costs, supported by an affidavit, with



the Board and with service upon Respondent. Within the same 30 days, the Clerk of the Pollution Control Board shall file a statement of the Board's costs, supported by affidavit and with service upon Respondent. Such filings shall be entered in Docket B in this matter.

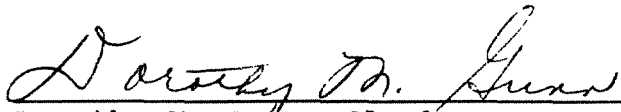
5. Respondent is hereby given leave to file a reply/objection to the filings as ordered in paragraph 4 of this Order within 45 days of this Order.

Section 41 of the Environmental Protection Act, Ill. Rev. Stat. 1989, ch. 111 1/2, par. 1041, provides for appeal of final Orders of the Board within 35 days. The Rules of the Supreme Court of Illinois establish filing requirements.

IT IS SO ORDERED.

J. Dumelle dissented.

I, Dorothy M. Gunn, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 20<sup>th</sup> day of June, 1991 by a vote of 6-1.

  
 Dorothy M. Gunn, Clerk  
 Illinois Pollution Control Board