ILLINOIS POLLUTION CONTROL BOARD
February 17, 1982

ALBURN, INC., Petitioner,	)	
v.	)	PCB 80-189 80-190
ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	

ROY M. HARSCH (MARTIN, CRAIG, CHESTER & SONNENSCHEIN) APPEARED ON BEHALF OF PETITIONER.

H. ALFRED RYAN, JUDITH GOODIE, AND MARY JO MURRAY (ASSISTANT ATTORNEYS GENERAL) APPEARED ON BEHALF OF RESPONDENT.

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

This matter comes before the Board on the October 14, 1980 appeals by Alburn, Inc. (Alburn) of certain conditions contained in a construction permit (80-190) and an operating permit (80-189) each of which was issued by the Illinois Environmental Protection Agency (Agency) on September 26, 1980. The permits govern operation of a liquid waste incinerator constructed in 1974 and located at 2400 East 119th Street, Chicago, Illinois. The procedural history concerning both the initial issuance of these permits and the appeals before the Board has been lengthy, complex, and in the Board's experience, more than usually adversarial.

Alburn, incorporated in October 1978, assumed physical operation of the incinerator in fall, 1979, operating pursuant to a permit expiring December 3, 1979 issued to one William Petrich, a predecessor in interest (R. 714, 720, Alb. Ex. 12, Att. 6). On September 7, 1979 Alburn applied for renewal of this operating permit, which application was supplemented by letter of January 2, 1980 (Alb. Gr. Ex. 6, Ex. 12). Following a meeting with the Agency January 22, 1980, a further supplemental request for a renewed operating permit was submitted January 24, 1980. Additional information was supplied in response to Agency request on February 12, 1980. This permit was denied February 20, 1980.

However, on January 23, 1980 Alburn had made initial application for a construction permit, which the Agency granted February 20, 1980, "to permit debugging, stack testing and establishment of maintenance and operating procedures for the facility" (Agency Ex. 1, 5 Alb. Ex. 4, It. 22).

Alburn then operated on an infrequent basis, making modifications to its scrubber and conducting unofficial stack tests. An official stack test, required by the construction permit, was conducted June 2, 1980 (R. 279-80, 417-18, Alb. Gr. Ex. 6). During this period, Alburn was engaged in frequent discussion with the Agency.

By letter of July 16, 1980 Alburn sought modification of the February construction permit, insofar as it prohibited incineration of "chlorinated organic waste" (Alb. Ex. 5, It. 26). On August 6, 1980 Alburn requested Agency reconsideration of the Agency's February 20 denial of the operating permit renewal application of September, 1979 as supplemented January, 1980 (Alb. Ex. 5, It. 13). On September 9, 1980 the Agency issued to Alburn a revised construction permit, and an initial operating permit.

These permits by their terms expired January 9, 1981 (which issue is one of the many here appealed). On January 26, 1981 the Agency purported to issue new permits, conditions of which were appealed by Alburn February 13, 1981 in PCB 81-23, 81-24. On March 19, 1981 the Board dismissed PCB 81-23, 24, holding that

> "[u]nless the proceedings in PCB 80-189 and 80-190 are to be withdrawn, and modified or new permits are to be subsequently issued the prior permits remain in full legal effect...if permit applicants appeal a permit to the Board, and subsequently try to settle their contentions with the Agency, then upon resolution of those contentions the appeal to the Board should be dismissed."

In response to an Alburn motion, on May 1, 1981 the Board stayed the effect of contested conditions of the September, 1980 operating permit and of the contested revisions made September, 1980 to the February 1980 construction permit. The stay has continued in effect during the pendency of this action, despite Agency motions to lift it, based on the Board's repeated findings that no environmental harm has been alleged, and that Alburn had alleged that lifting of the stay would cause it great economic harm (Orders of June 10, July 15, November 5, 1981).

After a particularly acrimonious discovery period (see Orders of May 28 and June 16, 1981) hearings in these appeals were held July 16, 17, 24, 27, 28 and August 5, 1981. Both Alburn's Brief of October 30, 1981 and the Agency's Brief of November 24, 1981 request the Board's review of various evidentiary rulings made by the Hearing Officer.

PENDING MOTIONS

Alburn moves the Board to strike certain testimony of Agency witnesses Bharat Mathur and James Cobb, both of whom reviewed and wrote the permits here at issue. Their testimony indicates that

they relied upon certain information not contained in the Agency record as required to be filed by Procedural Rule 502(a)(4). The motion is denied in part and granted in part.

The Agency need not include in its record copies of USEPA rules and proposals of which the Board may take judicial notice, although citation to such materials would be of assistance to both the Board and the petitioner. Articles and textbooks generally available and relied upon by practitioners in the field of air pollution control also need not be included in the Agency record. Alburn's motion is denied as it relates to such material.

Where as a matter of Agency routine an employee has made written notes of discussions with USEPA officials or other persons, and has relied upon such discussions in drafting a permit, such notes should be included in the Agency record. As the record in this case does not indicate whether telephone notes ever were made of the discussions referred to in testimony, Alburn's motion is denied.

Agency reliance was also placed on a 1974 stack test (R. 953), certain historical information in the Agency files (R. 864, 868), and a draft of the "Miter Report" to USEPA, "an informational paper present[ing] tentative information for limited distribution" (R. 877). These items should have been included in the Agency record, as they are otherwise inaccessible to the permittee and the Board. Testimony concerning these items is accordingly stricken.

Alburn also moved to delete testimony concerning the existence of barrels of waste on certain pieces of property near the incinerator site. This motion is denied. Alburn has availed itself of the opportunity to enter its own witness testimony (R. 722-725) to counter any inferences made in the Agency's opening remarks (R. 32-35).

Finally, Alburn objects to failure on the Agency's part to answer with specificity Interrogatories 1 and 5 of June 1, 1981. While Alburn objects, it requests no specific relief. The Board accordingly will take no action on what is, at best an untimely protest.

The Agency has "registered its objection to the prejudice of the Hearing Officer against the Agency from the beginning of the proceedings" (Brief at 51), particularly as they relate to a conference call ordered to be made at hearing (R. 743-44, 747-58, 804-5), and "improper pre-judgment" of issues. Reviewing the history of the action as well as the 1000-odd page hearing record, the Board finds no evidence of bias on the part of its Hearing Officer. As reflected in the hearing record as well as in appearances before the Board itself, this action has been characterized by allegations by each party that the other has acted in bad faith, verbal sparring, and other indicia of personal animus. The Hearing Officer has, in the main, properly and correctly exerted his

authority under what were apparently trying circumstances for all concerned. While the Hearing Officer offered remarks on ultimate issues of the case, these comments did not abridge the parties' rights to make a full record for the Board, which as the parties are aware, makes all ultimate decisions on contested issues.

THE FACILITY

The Alburn site includes a liquid water incinerator with scrubber, a scrubber feed water pit, and a collection of waste solvent storage tanks (listed below).

Storage Tanks

Code	Description	Number	Capacity (gal)
A1, A2[a]	day tank (batch)	2	4,500
U1, U2	underground solvent tank	2	10,000
Q1, Q2, Q3, Q4, Q5, Q6	underground solvent tanks	6	10,000-12,000
P1, P2, P3	solvent waste receiving pits	3	2,000
T	waste oil tanks	12[b]	3,000-18,000

(a) Respondent Ex. 1; - (R. 584-586)
(b) (R. 600)

The incinerator is a refractory lined tube 24 feet long with a diameter of 5 feet 4 inches (R. 103). The burner, manufactured by Hauck (R. 175) injects the waste solvent through a one-eighth inch orifice (R. 87) on the centerline of the incinerator (R. 980). Residence time of the combustible material in the incinerator is 2.3 seconds (R. 166). The waste solvent is filtered prior to blending in the day tank and is filtered prior to the burner (R. 109). An automatic burner shut off will be activated if the scrubber flow fails (R. 167) or if there is no flame in the incinerator (R. 457). The temperature in the incinerator is monitored by a thermocouple and is recorded on a strip chart (R. 376).

The scrubber, or spray tower, is a chamber 21 feet high and with a diameter of 18 feet which contains four 14' foot spray bars, each with 100 spray nozzles (Petitioner Ex. 8). The flow rate of the scrubbant liquid is 500-700 gallons per minute (R. 156). The scrubbant liquid is waste water that is stored in a 200,000 gallon pit (Respondent Ex. 1). The stack is 60 feet high with a diameter of 8 feet 6 inches (Petitioner Ex. 8).

APPEALED CONDITIONS

Alburn appeals the following conditions in each of its permits·

Construction Permit

1. Expiration date of January 1, 1981.

2. Installation of continuous monitors with strip chart recorders for a) oxygen, carbon dioxide, carbon monoxide, and b) hydrocarbons.

3. Stack tests including raw feed characteristics and volume showing compliance with [Rule 203(e)(3)] particulate standard of 0.2 gr/scf corrected to 12% CO_2 and showing 99.9% combustion and destruction efficiencies.

4. Submission of a plan for disposal of stored waste "in a proper manner other than incineration". (This waste had been stored in the "T" tanks by a previous lessee of the site.)

5. Installation of an automatic interlock system causing incinerator shutdown in the event of scrubbant flow failure or improper reduction of combustion chamber temperature.

6. "Requirements for Determination of Waste Similarity".

7. Limitation of future permits to waste for which successful tests are received.

Operating Permit

1. Expiration date of January 9, 1981 with renewal contingent on compliance with construction permit.

2. Compliance with Rule 203(e)(3) emission standard of 0.2 gr/scf at 12 % CO_2.

a) Receipt of Special Waste Disposal Permit for each waste to be incinerated. Permits not issued if wastes do not meet specifications. 1) higher heating value of at least 10,000 Btu/lb., 2) ash content 1 % wt. 3) chlorine content of less than 8 % wt. 4) moisture content less than 10%, 5) flash point less that 140°F

b) 15 minute test burn prior to initial waste acceptance.

c) Manifest discrepancy tests of successive shipments to assure 1) flash point difference of only ± 10°F, 2) moisture content of 10%.

3. a) Limitation of incinerator feed rate to lesser of 3.5 gallons per minute or 2,000 lbs./hr.

4. Compilation of incinerator logs showing

a) 1) Waste's heating value and ash, moisture and chlorine contents; 2) batch's incineration time 3) volume, and 4) specific gravity.

b) logging of operating parameters every 15 min. for, in the stack gas, 1) temperature, 2) O_2, 3) CO_2, and 4) CO; 5) organic material concentration; 6) incinerator feed rate; 7) scrubbant flow rate; 8) outlet scrubbant pH.

6. Permit limited to wastes meeting conditions 2(a). Supplemental construction permit required to allow testing of other wastes, with subsequent operating permits conditional on meeting condition (3) (stack test requirement) of the September, 1980 construction permit.

Prior to addressing specific conditions, some general observations are in order. These conditions fall into the following general issue categories: Rule 203(e)(3)-related conditions; monitoring and logging requirements concerning what comes out of the stack and what actually goes into the incinerator; permit and testing requirements relating to wastes received at the site; and miscellaneous conditions. Conditions will be dealt with in these general groups. Construction permit conditions will be designated as "C" and operating conditions as "O".

This permit appeal is somewhat anomalous. Pursuant to Section 40(c) of the Act, in considering this appeal the Board is restricted to consideration of the information before the Agency at the time the permit was granted (see Order of January 21, 1982). The record reflects however that some of the information relied upon by the Agency has been supplemented and/or superseded by information supplied to it by Alburn in the course of subsequent permit applications, and by information generated and arguably applicable requirements imposed by USEPA during the course of rulemaking concerning hazardous waste incinerators. While such information can have no place in the Board's decision as rendered today concerning the Agency's 1980 determination, the Board anticipates that such information will be utilized by the Agency in modifying the permit consistent with the terms of this Order.

RULE 203(e)(3) AND THE HYON DECISION

Alburn contends that the conditions based upon and requiring compliance with Rule 203(e) of Chapter 2: Air Pollution should be deleted, based upon two 1976 cases: Hyon Waste Management Services, Inc. v. IEPA, PCB 75-413, 21 PCB 75 (April 8, 1976) ("Hyon I"), and Hyon Waste Management Services, Inc. v. IEPA, PCB 76-166, 24 PCB 419 (December 16, 1976) ("Hyon II"). In these cases, the Board determined that Rule 203(e) was inapplicable to liquid waste incinerators. Based on Hyon I and II, Alburn argues that conditions 3(d) and 7 of the construction permit, and conditions 2, 2(a)(ii), 3(d) and 6 of the operating permit are improper.

The Agency argues that the Board should repudiate the Hyon decision, which it believes were based on improper constructions and applications of the Act. It further contends that the Board has implicitly done so in the Opinion rendered In The Matter of Particulate Emission Standards for Combustion of Low Carbon Wastes, R77-5, 32 PCB 403 (January 4, 1979). However, even assuming that Hyon I and II are controlling, the Agency believes that the conditions are proper and permissible.

In Hyon I, Hyon sought an operating permit for an incinerator disposing of industrial liquid wastes. The Board determined that Rule 203(e)(2) could not serve as the basis for denial of an operating permit to Hyon. Rule 203(e)(2) sets a 0.2 gr/scf corrected to 12% CO_2 for incinerators burning more than 2,000 but less than 60,000 pounds of refuse per hour. A "troubled" Board found that its Rule 203(e) particulate emissions standards apply "only to incinerators burning primarily solid waste" 24 PCB 80, 78.

In reaching this determination, the Board noted that when it adopted the particulate standards in R71-23 (April 13, 1972) it had defined "incinerator" as a "combustion apparatus on which refuse is burned", and that "refuse" was at that time defined in the Act as "any garbage or other discarded solid materials" (emphasis added) Ill. Rev. Stat. Ch. 111½, §1003(k) (1975). The Board found that the 1975 deletion of the word "solid" by P.A. 79-762 reflected no conscious legislative intent to expand the coverage of existing regulations. The Board further observed that the particulate limitations when enacted were designed to track Federal New Source Standards, which specifically limited their coverage to "incinerators" burning "solid waste". The particulate limitations, particularly with regard to the 12% CO_2 correction factor, were found to have been based on the emissions generated from burned coal or municipal (solid) wastes. The Board found persuasive Hyon's arguments that the correction factor would "be inappropriate for application to incinerators burning largely liquid wastes".

The Board held that "the particulate limitation of Rule 203(e)(2) is inapplicable in Hyon's case for grounds "sufficient, individually; collectively, ...compelling". However the Board went on to express its belief that some control over the incineration process was necessary, and its hope that Hyon, the Agency, or any other source would propose applicable regulations. Neither Hyon nor the Agency has proposed regulations generally applicable to liquid waste incinerators. However, three months after Hyon, in R77-5, Addressograph-Multigraph Corporation petitioned for an amendment of Rule 203(e)(4), which set a standard for new incinerators not covered by 203(e)(1-3) of 0.1 gr/scf corrected to 12% CO_2. While the petition did not specifically seek relief exclusively for petitioner's "aqueous waste incinerator" alone, Addressograph's incinerator was found to be the only affected source in the state.

The Board adopted a rule of statewide applicability amending the CO_2 correction factor to 50% excess air. It noted record information suggesting that the 50% correction factor would be an appropriate correction for all incinerators, but limited the rule to incinerators of the Addressograph type due to the limitations of the record before it 32 PCB at 404.

R77-5 impliedly overrules Hyon insofar as it states, without discussion, that the Addressograph incinerator was subject to Rule 203(e)(4). The two Opinions could, of course, be rendered consistent by a finding that Hyon is restricted to its facts, and the applicability of Rule 203(e)(2) to a particular incinerator. The Agency believes that this should, at least, be done, as Alburn has not argued the inapplicability of the 12% correction factor to its incinerator, as did Hyon regarding Rule 203(e)(2) and Addressograph regarding 203(e)(4). However, in view of the sweeping language in Hyon regarding the particulate standards, the Board believes that the drawing of such narrow, legalistic distinctions is not within the best interests of the Agency, the regulated community, or the public.

Over Alburn's objections, given that Hyon was never appealed, the Agency argues that in deciding Hyon the Board should have given recognition to legislative redefinition of the term "refuse". In support, it cites the opening paragraph of Chapter 2, Part I: General Provisions, which provides

> "Except as hereinafter stated and unless a different meaning of a term is clear from its context, the definitions of terms used in this Chapter shall be the same as those used in the Environmental Protection Act"

In the Agency's view, the Board itself clearly intended new definitions to be incorporated into its rules, and accordingly Rule 203(e) should be found applicable to liquid waste incinerators.

In incorporating future legislative definitional changes into its rules, however, the Board did not intend to have its regulations thereby apply to classes of sources the character of whose emissions were not considered on the record in a regulatory proceeding. Such a de facto enactment of what is essentially a new regulation and which bypasses the public notice, comment, and economic impact assessment requirements of Title VII would be beyond the scope of the Board's authority. This is the essential message of the Hyon decision, the validity of which the Board reaffirms.

Accordingly, as in Hyon, the Board finds that Alburn is not bound by the Rule 203(e) particulate emission standards. It is, of course, subject to the provisions of the Act and Chapter 2

prohibiting air pollution.* The Agency has shown no basis, independent of Rule 203(e), for imposition of that rule's particulate standard, citing only its general authority under Section 39(a) to impose necessary conditions. This is insufficient to support inclusion of these conditions, which must therefore fall.

MONITORING OF INCINERATOR OPERATION VIS A VIS INCOMING WASTE STREAM MONITORING

Permit Duration

Prior to consideration of the arguments on the merits of the technical incinerator and waste stream conditions, the context for their inclusion must be established by consideration of the arguments concerning the duration of each permit (C #1 and O #1).

The Agency initially asks the Board to note language in the February 20, 1980 construction permit (to which Alburn was subject during the pendency of the application for the instant permit)

> "The issuance of this permit is not based upon an independent engineering judgment, by the Agency, as to the performance of the emission source and the adequacy of related control equipment. Instead the Agency is issuing this permit based upon guarantees by the permittee and equipment vendor that the emission source and control equipment will comply with all applicable standards. The Agency is issuing this permit in the understanding that to require detailed information, at this time, would place an unreasonable burden upon the permittee. The Agency is issuing this permit as a convenience and the permittee agrees that he understands the full circumstances surrounding the permit issuance and is representing to the Agency that sufficient information cannot be presented at this time to allow engineering review by the Agency." Alburn Ex. 4, Item 22.

---

*The Board notes that this arguably does not leave Alburn entirely free from meeting a specific particulate standard, as was Hyon in 1976. As Alburn itself states, "[t]he majority of the waste material Alburn incinerates are classified as hazardous materials pursuant to the USEPA's RCRA regulations" (Br. 15 16) subjecting Alburn to the requirements of obtaining a RCRA permit. USEPA's January 23, 1981 interim final "Incinerator Standards for Owners and Operators of Hazardous Waste Management Facilities" imposes a performance standard of 180 mg per dry standard cubic meter (0.08 gr/scf) (46 Fed. Reg. 7666, 69). While USEPA has proposed to suspend the effective date of these rules for existing incinerators (46 Fed. Reg. 51407, October 20, 1981), no action has been taken on this proposal. However, USEPA issuance of RCRA permits for such incinerators has been suspended during pendency of the proposal.

The Agency's position is that Alburn had made various representations concerning testing to be performed, equipment to be installed, and additional information to be supplied upon which the Agency relied in issuing the February, 1980 permit. Alburn's operating permit application did not, in the Agency's opinion "satisfy the February 20th permits' [requirement of] a comprehensive discussion on the ability of the incinerator to operate" (R. 830). Monitoring equipment required and agreed by Alburn to be installed was not in place by the expected September 30, 1980 date (Alb. Ex. 4, It. 13 at p. 3). The Agency's permit manager Dharat Mathur testified that, although he believed the permits could properly have been denied, in response to Alburn's repeated requests for an operating permit and various representations

> "because of lack of prior operating information and the vital need of the Agency to totally understand what this equipment was capable of doing, we agreed to the operating permit for a limited time, to be further evaluated after all the equipment was in place, and the Agency could then intelligently evaluate what was going on at Alburn" (R. 831-32).

In short, the Agency was giving Alburn the benefit of any doubts about ultimate compliance with the Agency's information needs and Alburn's own representations, but would keep Alburn on a "tight rein" to insure that such was done promptly. The Agency essentially goes on to argue that Alburn's "bad faith" appeal here of conditions O #2(a)-(c) and C #2, which had previously been agreed to or suggested by Alburn, are proof in hindsight that the short permit terms were a necessary control upon Alburn.

Alburn does not challenge the assertion that it agreed to or suggested several permit conditions. However, this was based on its consultant's belief that an "as blended" permit would be issued (R. 782).

Alburn's position is that the 4 month duration of these permits, combined with the requirement of receipt of supplemental waste disposal permits which take up to 3 months to obtain, is tantamount to permit denial. Alburn alleges that it has lost customers due to the supplemental permit's long processing time and short life under the circumstances (R. 650-51). It also alleges that it has been limited in its ability to obtain debt financing, due to lack of any guarantee concerning its ability to operate after the 4 month period (R. 789).

C #2(a and b) monitoring, O #4(c) logging of operating parameters

The requirement for continuous monitoring and strip chart recording of O_2, CO and CO_2 was consistent with USEPA regulations for the incineration of hazardous wastes as proposed December 18, 1978, 45 Fed. Reg. 59008. (The federal rules as adopted January 23, 1981 require continuous monitoring only of CO).

Alburn takes manual samples to monitor for these parameters. It employs the commonly used Fryrite system for CO_2 and O_2, and the Drager tube method for CO to arrive at these measurements. Alburn believes that once the incinerator reaches a steady state of combustion, further testing is unnecessary (R. 154, 155, 159). It believes that fluctuations in these parameters would be reflected in temperature differentials, which are the subject of a continuous digital readout (R. 153, 376) or by visual inspection of air emissions.

Its argument is that the desired end--complete combustion as measured primarily by CO levels--is attainable by less costly measures than installation of continuous monitors.

The Agency testimony in support of the condition referred to USEPA's proposed rules, cited lack of operating information concerning Alburn's facility, and noted that continuous monitoring was an aid to the Agency's surveillance and enforcement programs (R. 834).

Alburn does not routinely monitor for hydrocarbons, which are emitted when incomplete combustion occurs. However, it cites June, 1980 stack tests as showing low hydrocarbon emissions--0.7, 1.09, and 1.08 ppm and a destruction efficiency of 99.95% (R. 349 and Alb. Gr. Ex. 9). As there exists a relationship between CO levels and hydrocarbon levels, Alburn believes that maintenance of low CO levels provides a reasonable indication of minimal hydrocarbon levels (R. 160). Alburn further notes that hydrocarbon monitoring is expensive, difficult, and a high maintenance item (R. 631).

In support, the Agency states that not only do hydrocarbons contribute to ozone formation, but that "when hydrocarbons are combusted and come out of the stack, they combine and react with each other to produce products of combustion that nobody really knows or can predict as to what they will be" (R. 838). The June, 1980 stack tests were discredited because there was never an analysis of the waste which was incinerated (R. 680, 683) (although there exists a dispute as to whether such analysis was the responsibility of the Agency or Alburn, R.). The Agency agrees that there is in fact a relationship between CO levels and hydrocarbons, but submits that it is neither a direct relationship, nor one which has been reduced to any sort of equation (R. 971-73).

The condition requiring the logging of parameters at 15 minute intervals is based in part on USEPA proposed rules, and installation of continuous monitors. The Agency admits, as Alburn argues, that the 15 minute interval "is impractical if all the monitoring is performed physically" (Br. at 46).

C #6 "Waste Similarity", C #7 Future permit limitation, O #2(a) supplemental permit, (b) test burns, c) discrepancy tests, O #6 permit limitation

Condition 2 of the operating permit is the condition from which flows the other challenged requirements, and around which the others center. Alburn alleges that these conditions improperly ignore the character and operating requirements of its facility, by regulating wastes on an "as received" basis rather than on an "as blended and burned" basis.

The wastes which Alburn received and incinerated prior to issuance of the challenged permits and which it contemplates continuing to receive and incinerate consist of solvents and waste oils generated in the point industry, the graphic arts field, and in machinery and other operations and industries (R. 79-81). In its January 23, 1980 letter to the Agency, Alburn submitted a list of solvents according to industry type, its prospective customers and a waste analysis of 26 wastes received in 1979 (Agency Ex. 1).

Alburn's permit application included a flow chart indicating existence of its several holding and storage tanks, and only generally indicating that wastes received would be blended by inclusion of a box labelled "blending tanks" (Agency Ex. 1). The application did not contain a narrative description of Alburn's blending capabilities, which has admittedly evolved since September, 1980 (R. 249-250, 703).

At hearing, Alburn explained that the waste it receives from any particular source varies in quantity from as little as several barrels to as much as 3,000 to 6,000 gallons (R. 343, 344). Received wastes flow by gravity into one of the six 10,000-12,000 gallon storage "Q" tanks (R. 586). Stored wastes are then pumped directly into one of two 4,500 gallon agitated "day tanks" for feeding into the incinerator, or into one of two 10,000 gallon "U" mixing tanks for blending prior to incineration.

Alburn states that it determines compatibility of a newly received waste with material already in any given storage tank before admitting new material into a tank. This initially involves comparison of composite samples of the new waste with previous samples from that source regarding viscosity, layering, and odor, and performance of a palate test to arrive at estimated Btu, water and chlorine contents. Samples of the new waste are mixed with samples of the stored waste, for the purpose of observing occurrence of layering, increase in viscosity or temperature, or evolution of gases. While layering occurs in one of ten compatibility analyses, Alburn alleges that layering can be corrected either in its day tanks or mixing tanks (R. 460-472).

The Agency does not challenge this description, but strenuously asserts that Alburn's failure to provide such information mandated "as received" restrictions to prevent the environmental dangers potentially caused by either occurrence of chemical reactions between incompatible wastes or creation of a waste fuel incapable of proper incineration (e.g. R. 842, 837, 874, 976). Alburn counters that lack of a detailed written waste

blending proposal does not justify this condition, as the Agency is chargeable with knowledge of the existence of Alburn's blending operation. In support, it cites the fact that a prior permit had been issued for the facility, and that Agency personnel had previously observed the operation of the facility (see e.g. R. 845-846).

While the Agency does not specifically address this point, the tenor of its arguments as a whole are that it is the applicant's duty to provide the Agency with necessary information, and not the duty of the Agency to "fill in the blanks" in a deficient application. Given the Agency's lack of information concerning blending, and its dissatisfaction with the June, 1980 stack test with no waste feed analysis, it is of the opinion that only two environmentally sound courses of action were open to it. The first, as outlined in the Agency brief (at 39-40) would have been to require Alburn to conduct a thorough analysis of each waste as it was received, and then to submit test results to the Agency while storing the waste on site, to conduct further trial burns or stack tests as necessary, and then finally either to incinerate the waste with Agency permission or to ship it elsewhere for proper disposal. The Agency chose, instead, to impose the challenged conditions discussed below.

C #2(a) requires Alburn to obtain supplemental waste disposal permits issued by the Agency's land division pursuant to Chapter 7: Solid Waste provisions. This condition was not based on requirements of Chapters 7 or 9 themselves (R. 894). Rather, use of this existing procedure, in the Agency's view, had the benefits of eliciting a detailed waste analysis, of preventing Alburn from accepting waste it could not incinerate, and of preventing creation of a new paperwork section within the air division duplicative of a functioning unit within the land division.

Alburn objects to the condition as a matter of law on the basis that Chapter 7 solid waste requirements cannot be made to apply to liquid waste incinerators. It further argues that, since supplemental applications submitted by Alburn in February-September, 1980 were not included in the Agency record, that it did not rely on the information contained therein in issuing the September permits.

Alburn further states that, in practice, compliance with this practice can take up to 90 days (the statutory deadline for Agency permitting decisions), by which time a waste generator may have taken his business elsewhere (R. 457, 650-651). This requirement is viewed as being particularly onerous in light of the permit's four month duration, also being challenged.

C #2(a)(1)-(5), containing limitations on characteristics of individual wastes, were based by the Agency on the contents of the representative waste analyses submitted to the Agency by Alburn,

and in part on Alburn's own proposals. The Agency objects to Alburn's appeal of conditions for this reason, and for various independent reasons.

The establishment of the 10,000 btu/lb. heating value as a minimum [(a)(1)] was designed to insure maintenance of an adequate temperature (R. 947-48). This goal could be attained when incinerating waste with a lower btu content, but for the Agency's limitation of the feed rate (based on Rule 203).

A limitation of 8% by weight was imposed on any waste's chlorine content, in contrast to the 10% limit requested by Alburn. The January waste analyses indicated chlorine contents of less than 8%. The Agency's choice of the 8% limit was based on "engineering judgment" and the desire to prevent production of halogenated products which are the result of incomplete combustion. The difference in the risks between an 8% and 10% chlorine concentration were not quantified by either party.

The 10% moisture content limitation [(a)(4)] was also designed to insure adequate temperature for incineration and to prevent separation and inconsistencies within the fuel (R. 958). Alburn maintains that it has successfully incinerated waste alcohols with moisture contents of up to 40% (R. 475).

The limitation of flash point to less than 140°F is said by the Agency to be consistent with then-existing RCRA regulations prohibiting landfilling of low flash point materials. Alburn believes the condition is arbitrary, as being unrelated to the ability to incinerate materials with higher flash points, as is the Agency's unsupported insistence on open-cup as opposed to closed-cup tests.

The required 15 minute test burn prior to acceptance or storage of waste [2(b)] was intended to insure that incinerator operating conditions could be met regarding each waste. Alburn objects to this testing of each waste "as received", and in addition objects because of practical difficulties. When the incinerator is "down", a test burn is obviously impossible. Alburn maintains that its procedure of conducting a palate test, manifest analysis and visual observations are in themselves sufficient to allow for safe acceptance and incineration of an incoming waste load.

The mainfest discrepancy test requirements [2(c)] for flash point and moisture content are challenged as being impractical and unnecessary (Alburn notes that they were deleted from the invalidated permit of January, 1981). Alburn believes that its existing comparison procedures are adequate to insure close similarity of a given waste load to previous wastes shipped by a particular generator, particularly as compared with tests taking up to 1½ hours to complete while a hauler waits to deliver a load (R. 695).

The permit limitation condition (O #6) is considered objectionable first in that it refers to the challenged supplemental waste permit procedure, but further in that it requires a supplemental permit for stack testing of wastes which do not comply with all of the challenged parameters.

The "Waste Similarity" characteristics were included in the construction permit (C #6), according to the Agency "so that the applicant is informed that the waste it can accept can vary from the specific parameters detailed earlier in condition 2(a)(1-5) of the operating permit" (Brief at 34). Alburn challenges this condition on the grounds that they were "arbitrarily lifted verbatim from a draft document prepared for USEPA entitled 'Guidance Manual for Evaluating Permit Applications of Incinerator Units'", a document not contained in the record before the Board (Brief at 29).

The limitation of future permits to wastes for which successful tests are received (C #7) is objectionable because it prohibits calculations of estimated emission values based upon stack tests and other information.

The Board's Determination

The parties' positions can be paraphrased most concisely. Alburn complains that the short construction and operating permits, to whose conditions it originally agreed in the main (though on an "as blended" permit basis), do not take its operating capabilities and requirements sufficiently into account, and create operational impossibilities and absurdities. The Agency replies that Alburn should not complain about the permits, since they were issued as an accommodation and were as closely tailored to the facility as was possible given the fact that the Agency did not have sufficient information about the facility's operating capabilities and requirements.

Joining the parties in their penchant for observations made with the benefit of hindsight, the Board will comment that the Agency's most proper action in 1980 would have been to deny the operating permit and to issue a construction permit of longer duration. The Agency's goal was clearly to accommodate the business needs of a potential waste disposer while protecting the environment. The results have been a business disaster for Alburn and the delay of a realistic determination concerning how useful the site may be in furthering the expressed legislative preference for disposal of hazardous wastes other than by deposition in landfills [Section 22(h) of the Act]. In short, expedition of the permitting process has substantially delayed resolution of the operating questions at issue.

The Board finds that issuance of a four month "accommodation" operating permit to seek further information was an unsound exercise of the Agency's permitting discretion. The permit to operate should not have been issued until information gaps had been closed to the Agency's satisfaction.

Given the Agency's lack of information, which created an unreasonable permitting situation from the beginning, the Board believes that the Agency's required stack gas and incinerator operation monitoring and logging requirements was reasonable, and necessary to accomplish the purposes of the Act. Close monitoring of emissions from the stack and of incinerator operations is directly and reasonably related to the purpose of insuring complete combustion and destruction of wastes, and prevention of release of contaminants into the air.

Were the monitoring requirements not included in the permit to directly measure the effectiveness of Alburn's operation, again given the information lack, the Board would find the tight control of wastes as received to be reasonable, as an indirect front-end check on emissions to the air. Assuming that the Agency had no knowledge of an Alburn blending capability, restrictions on the specifications of each waste received would also be viewed as reasonable. However, given the monitoring requirements, and the fact that the Agency had some, although not detailed, knowledge of a blending capability, the dual controls combined to create unreasonable, overly-tight restrictions which are not necessary to accomplish the purposes of the Act. Alburn's initial acquiescence to these conditions does not change the Board's thinking in this regard.

The limitations placed on various waste characteristics [O #2(a)] would, of course, guarantee that a waste blend would violate none of the individual waste characteristics specifications. However, in insisting that each waste meet such specifications, an unreasonable prohibition is placed on the burning of a waste which individually could be difficult to incinerate, but which could be safely destroyed if appropriately blended. Permit prohibition of incinerating waste blends beyond set specifications would have been the more appropriate response. (Use of the existing supplemental waste disposal permit system was an administratively sound decision, though based on a faulty premise.) This permit condition must accordingly fall as applied to each individual waste, but would appear to be justified as applied to waste blends (to the extent the prohibitions are not invalidated by the Board's decision regarding applicability of Rule 203). Based on the record, the Board will sustain the Agency's "engineering judgment" concerning the 8% chlorine limitation on an "as blended" basis as Alburn has failed to prove its unreasonableness.

The O #2 b) test burn falls for similar reasons, as does the O #6 permit limitation. The O #2 c) specified manifest discrepancy tests also fall as unnecessary in this context (in addition to being a condition eliminated by the parties in the invalidated January, 1981 permit.

The O #7 and C #7 permit limitations cannot stand as written, as they require testing of each waste. Even within the scheme of the two permits as written, inclusion of the C #6 waste similarity

tests baffles the Board. As the operating permit required a permit for each new waste stream, and the relevance of this requirement to the construction permit has been nowhere explained, inclusion of this condition cannot be sustained on any basis.

The foregoing is not to be read as preventing the Agency from requiring Alburn to submit an analysis of each new waste stream it receives, from performing appropriate manifest discrepancy tests, or from being required to prove by the use of stack tests or other appropriate means that a waste blend with those beyond the challenged permits' individual waste specifications can be successfully incinerated.

MISCELLANEOUS CONDITIONS

C #4 Waste Disposal Plan

Alburn contests this provision only to the extent that it is required to submit a plan for disposal of wastes "other than by incineration". The Agency's arguments concern why a plan should be required, but do not explain why proper incineration cannot be allowed. This condition shall therefore be revised to delete the "no incineration" provision.

C #5 Automatic Incinerator Shutdown

The Agency agrees that Alburn's existing systems serve the purpose of this condition, which is to prevent incomplete destruction of waste. However, Alburn's capabilities were not submitted to the Agency in the permit application. While the Board will sustain the Agency's 1980 decision, it would anticipate that these capabilities will be recognized in the reissued permit.

This Opinion constitutes the findings of fact and conclusions of law of the Board in this matter.

ORDER

The Agency's decisions to impose the contested conditions are affirmed in part and reversed in part. These permits are remanded for Agency revision consistent with the terms of this Order.

IT IS SO ORDERED.

I, Christan L. Moffett, Clerk of the Illinois Pollution Control Board, hereby certify that the above Opinion and Order was adopted on the 17th day of February, 1982 by a vote of 4-0.

Christan L. Moffett

Christan L. Moffett, Clerk
Illinois Pollution Control Board