BEFORE THE
POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

WEYERHAEUSER COMPANY, [Longview Plant], Appellant, v. State of Washington, DEPARTMENT OF ECOLOGY, Respondent.	PCHB Nos. 86-224 and 87-33 FINAL FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

THIS MATTER involves appeals by the Weyerhaeuser Company of two Department of Ecology Orders (No. DE 86-714 - our number PCHB 86-224, and No. DE 87-103 - our number PCHB 87-33). The Orders assert that on July 17, 1986, October 23, 1986, and November 12, 1986 Weyerhaeuser violated the pH limitations in NPDES permit No. WA-000012-4, in violation of RCW 90.48.180. Total penalties of $30,000 were assessed. The appeals were consolidated for hearing. The Pollution Control Hearings Board held a formal hearing on June 11 and 12, 1987, in Lacey, Washington. Board members present were Judith A. Bendor (Presiding), Lawrence J. Faulk (Chairman), and Wick Dufford.

Appellant Weyerhaeuser was represented by Attorneys Charles K. Douthwaite and Susan L. Preston. Respondent Washington State Department of Ecology ("DOE") was represented by Assistant Attorney General Charles W. Lean. Reporters from Gene Barker & Associates recorded the proceedings.

Pre-Hearing briefs, case law, exhibits, and proposed findings of fact and conclusions of law and order were filed, admitted and examined; testimony and argument were heard. From the foregoing, the Board makes these

FINDINGS OF FACT

I

Appellant Weyerhaeuser is a corporation under the laws of the State of Washington with its business offices located in Federal Way, Washington. It owns and operates a large industrial complex, employing about 1,200 workers in Longview, Washington, with annual sales of $37.7 million. The complex includes a pulp mill, a paper plant and a chlorine plant. The plants have combined their wastewater which discharges into the Columbia River (Class A waters) through outfalls numbers 001 and 002.

At all times relevant to this case, Weyerhaeuser's discharges through these outfalls were subject to the terms and conditions of a National Pollutant Discharge Elimination System ("NPDES") Waste Discharge Permit No. WA-000012-4, issued by the State of Washington Department of Ecology.

II

DOE is a state agency authorized to implement the State water pollution control statutes and, in that capacity, to issue a NPDES permit for the discharge of industrial wastewater into waters of the state and to monitor compliance with the terms and conditions of such permits.

III

NPDES permit WA No. 000012-4 was issued to Weyerhaeuser by DOE on October 7, 1985. It contains numerous conditions, among which the following ones are relevant herein:

SPECIAL CONDITIONS

S1. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from the following outfalls subject to the stated limitations and monitoring requirements:

OUTFALL 001 and 002

	EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
Parameter	Daily Average[a]	Daily Maximum	Frequency	Sample Type
[. . .]				
pH	5.0 to 9.0 at all times[b] [Emphasis added]		Continuous	Recording
[. . .]				

b/ All excursions outside the 5.0 to 9.0 pH range shall be considered violations, (i.e., 40 CFR 401.17 shall not apply to this discharge). The instantaneous maximum and minimum pH shall be reported monthly.

[. . .]

General Conditions

G1. All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that authorized by this permit shall constitute a violation of the terms and conditions of the permit.

G2. The permittee shall at all times properly operate and maintain all facilities and systems of collection, treatment, and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

G3. The permittee, in order to maintain compliance with its permit, shall control production and/or all discharges upon reduction, loss, failure, or bypass of the treatment facility until the facility is restored or an alternative method of treatment is provided. This requirement applies in the situation where, among other things, the primary source of power of the treatment facility is reduced, lost, or fails.

G4. [Permittee's Provision of Information re Noncompliance]

[. . .]

In addition, the permittee shall take immediate action to stop, maintain, and clean up any unauthorized discharges and take all reasonable steps to minimize any adverse impacts to waters of the state and correct the problem. [. . .]

G12. All other requirements of 40 CFR Part 122.41 and 122.42 are incorporated into this permit by reference.

G13. Nothing in this permit shall be construed as excusing the permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

The permit requires that the pH of the discharge be monitored and reported continuously. Monthly monitoring results are to be summarized and reported by the permit holder on the Discharge Monitoring Report

form ("DMR") and mailed to DOE no later than 15 days after the month's end. Condition S2.

IV

In issuing the permit, DOE explicitly refused to allow any variation from continuous compliance with the 5.0 to 9.0 pH range.

The reference in footnote b/ to 40 CFR 401.17 is to a 1982 regulation of the United States Environmental Protection Agency (EPA) which allows dischargers who continuously monitor pH to exceed pH limitations imposed about one percent of the time. This regulatory "variance" applies in NPDES permits issued by EPA.

In March of 1984 DOE stated its policy in response to EPA's "variance" regulation. The state agency took the position that allowing the "variance" would allow the violation of state toxicity standards, threatening aquatic life in the immediate area of the discharge. After issuing the current NPDES permit, DOE cited this policy in explaining to Weyerhaeuser its reason for refusing to adopt EPA's more lenient approach.

Thus, the DOE refused to implement the federal pH "variance" in this state-issued permit, using water quality concerns as a basis.

V

Weyerhaeuser appealed the NPDES permit, including the refusal to allow any pH excursions outside the 5.0 to 9.0 range. DOE and

Weyerhaeuser, after a prehearing conference before this Board on March 11, 1986, agreed to settle the pH issue by modifying footnote b/ as follows:

> pH 5.0 to 9.0 at all times. b/
>
> b/ indicates the range of permitted values. Excursions between 4.0 and 10.0 shall not be considered violations provided no single excursion exceeds 60 minutes in length and total excursions do not exceed 7 hours and 30 minutes per month. Any excursions below 4.0 or above 10.0 shall be considered violations.

The effect of this settlement was to allow an EPA-type "variance" only within the stated limits. Beyond the 4.0 to 10.0 range no pH "variance" was to be allowed.1/

VI

The Weyerhaeuser Longview plants discharge their combined wastewater of approximately 65 million gallons a day into the Columbia River at 2.1 miles downstream from the Longview Bridge. The pH effluent levels are measured for permit purposes just before the outfalls 001 and 002's discharge into the fresh water of the River.

A clean water sewer is used for the discharge of non-contact cooling water and storm water from the chlorine plant. Wastewaters within this clean water sewer are not fed through the treatment plant

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1/ The revised footnote b/ was not actually inserted in Weyerhaeuser's permit during the period in question, but DOE nonetheless has observed the agreement in the exercise of its enforcement discretion.

for the complex. Rather, they join the treated discharges downstream of the treatment plant, thereby obtaining the advantage of dilution in the much larger volume of effluent from the pulp and paper facilities. The clean water sewer accounts for approximately three million gallons of the 65 million gallons per day of total discharge through the outfalls. Prior to 1980 this clean water sewer discharge went directly to the river through a separate outfall.

On occasion acid or caustic escapes from within the chlorine plant and ends up in the clean water sewer. The "treatment facilities" for such discharges are several in-plant neutralization systems. The pH exceedances in question were events when in-plant controls failed to neutralize wastes before discharge to the river. No holding ponds existed to retain these wastes until neutralization occurred.

VII

A pH of less than 7.0 is acidic; more than 7.0 is basic (or caustic). Since the pH scale is logarithmic, a pH discharge of 3.0, for example, is 10 times more acidic than one of 4.0, and 100 times more acidic than a discharge of 5.0, and so forth.

VIII

Appellant Weyerhaeuser submitted the July 1986 DMRs for NPDES permit No. WA-000012-4 on August 14, 1986. The DMRs showed that on July 27, 1986, the discharges had a pH below the effluent limits for 14 minutes, with a minimum pH effluent of 1.5. As a result of these

discharges, DOE issued Order of Penalty No. DE 86-714 on November 10, 1986 assessing a penalty of $10,000. (Note that DE 86-714 has an incorrect date for the violation, July 17, 1986, since corrected on the record.) Appellant filed an appeal with this Board on December 16, 1986. (PCHB No. 86-224).

IX

Weyerhaeuser's October 1986 DMRs showed that on October 23, 1986 there were 20 minutes of discharges from the outfalls where the pH effluent limits were exceeded and the discharges reached a maximum of pH 11.3. (These DMRs reported additional permit pH exceedences on October 10 and 24, which are not the subject of the Orders appealed herein.)

The November 1986 DMRs showed that on November 12, 1986 the discharges exceeded pH of 5 for 23 minutes, and reached a minimum of pH 2.0. (Total suspended solids excursions reported in the DMRs are not the subject of the Orders appealed herein).

As a result of these October 23 and November 12, 1987 discharges, DOE issued Notice of Penalty No. DE 87-103 on January 16, 1987, assessing a $20,000 penalty from which an appeal was filed with this Board on February 18, 1986, (PCHB No. 87-33).

By Order the two appeals were consolidated for hearing.

X

Appellant admits that all the aforementioned discharges exceeded

the permit effluent limits, but contends that "upset conditions" existed that legally excuse the exceedences under 40 CFR Section 122.41(n) and permit condition G.12, and thus no violation of the NPDES permit or of Chpt. 90.48 RCW has occurred.

XI

The July 27, 1986 pH exceedences were due to an unanticipated in-plant acid leak, which was followed by the failure of a lime rock pit to neutralize the flow. Sodium bicarbonate was added to the effluent, but not in sufficient quantity to control the amount of acid released. Evidence shows that the pit had not been filled to capacity with lime.

The October 23, 1986, pH exceedences were due to a mill-wide power outage from the power company. The chlorine plant's pumps then ceased to function which led to flooding and contamination of the plant's clean water sewer with high pH caustic. There was no holding pond capacity to store the flow, and it was discharged unneutralized into the River. No back-up power system was available for immediate use in the chlorine plant. It took two hours for temporary power to be in operation.

The November 12, 1986 pH exceedences were initiated by a loss of caustic to the clean sewer. The automatic neutralization system sensed the caustic and started a flow of sulfuric acid to the sewer to

neutralize it. However, the acid flow controller malfunctioned allowing too much acid to be injected. Again spill pond storage was not available to contain the acidic flow until it could be neutralized.

XII

Weyerhaeuser wrote DOE in December of 1986 and identified a series of improvements which could be taken to upgrade the ability of the chlorine plant to control pH in the clean water sewer.

On January 28, 1987, DOE issued Order No. DE 87-104 requiring Weyerhaeuser to undertake the measures the company had proposed and ordering specified actions to be completed by April 1, 1987. As a result, in part, of the exceedences at issue and responding to DOE's Order No. DE 87-104, appellant spent $66,000 to upgrade the pH neutralization capacity to prevent future pH violations. In addition, a back-up power system has been provided.

These changes involve both known, available, and reasonable technology, e.g. standby power, providing spill pond capacity, and basic maintenance, e.g. replenishing the lime rock. The chlorine plant, which covers 25 acres of ground and operates on three shifts a day for 360 days a year, is a complicated facility, involving the use of highly dangerous acid and caustic materials. In such an installation, there is a likelihood that things will from time to time go wrong. And this likelihood presents a substantial risk of harm. While not all problems can be precisely predicted, we believe that

events of the general type and magnitude of the three occurrences under review could reasonably have been anticipated, and prevented by proper design and maintenance before the violations occurred.

Thus, we find that the pH exceedances in July, October and November 1986, for which penalties were issued, were not the result of factors beyond the reasonable control of permittee. Further, we find that the installation of the steps taken in 1987, were necessary for the permittee to render the "treatment facilities" for the chlorine plant adequate, and to fulfill its permit requirements to properly operate and maintain "the treatment plant" at all times and to "control discharges" as those terms are used in G.2 and G.3 of the permit.

XIII

The events at issue involved significant violations of the effluent limits, especially considering the logarithmic character of the pH scale. No evidence was presented of adverse impacts on public health or the environment.

XIV

The Weyerhaeuser Longview facility as a whole has an extensive recent history of failing to comply with NPDES permit conditions. For example, between 1981 and 1985 twenty penalties were issued for NPDES permit violations, with payments totalling $23,000. (Maximum penalty levels have since been statutorily increased.) In January 23-25, 1986, appellant bypassed wastewater for which an $8,000 fine was paid. On

May 7, 1986, Weyerhaeuser's Longview plant exceeded permit conditions for BOD (biological oxygen demand) and TSS (total suspended solids), and on May 10, 1986 for TSS, and paid a $24,000 penalty for these May violations. A number of exceedances reported in DMRs have not been the subject of penalty assessments.

Specifically, as to reported pH exceedances alone, DOE's records show the following pattern of violations (eliminating double counting of 001 and 002 outfalls): 1982-1; 1983-3; 1984-3; 1985-10; 1986-10.

Problems with meeting pH limits prompted the change in 1980 from direct discharge to the river, to tying the chlorine plant clean water sewer into the main effluent lines from the treatment plant for the pulp and paper facilities, to increase dilution. Recognition of continuing compliance problems led to the expenditure of $117,000 for various in-plant controls in late 1985 and early 1986. The experience of the exceedances at issue demonstrates that in mid and late 1986, the problem remained unremedied.

XV

Any Conclusion of Law which is deemed a Finding of Fact is hereby adopted as such.

From these Findings of Fact, the Board comes to these

CONCLUSIONS OF LAW

I

The Board has jurisdiction over these persons and these matters. Chapters 43.21B and 90.48 RCW.

II

RCW 90.48.160 requires industrial operations which release liquid waste to obtain a permit. The NPDES permit issued to appellant Weyerhaeuser is an example of such a permit and fulfills the demands of both state and federal law. RCW 90.48.260. The permit was issued under the authority of RCW 90.48.180.

III

RCW 90.48.144 empowers the Department of Ecology to impose civil penalties on a strict liability basis. In pertinent part, it reads:

> Every person who:
>
> (1) Violates the terms or conditions of a waste discharge permit issued pursuant to RCW 90.48.180 . . .
> (3) . . . shall incur, in addition to any other penalty as provided by law, a penalty in an amount of up to ten thousand dollars a day for every such violation.
> [. . .]

The permittee is allowed to discharge only that wastewater which conforms to permit effluent limits. Condition S1.

IV

Following the decision in Marathon Oil Co. v. Environmental Protection Agency, 564 F.2d 1253 (9th Cir. 1987), EPA was obliged to recognize an upset defense for certain NPDES exceedances beyond the reasonable control of the dischargers. In response, EPA amended 40 CFR 122.41(n) to include a formal upset provision. The definition of "Upset" provided in the regulation is as follows:

> "Upset" means an exceptional incident in which there is unintentional and temporary

> noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (Emphasis added).

V

NPDES permits issued by the State may be stricter than standards established by the "EPA". 33 U.S.C. 1370. Marathon Oil, therefore, does not limit the state as it does EPA. States may omit the upset defense from their permits altogether. Sierra Club v. Union Oil Company, 813 F.2d 1480 (9th Cir. 1987).

The permit is to be read as a whole, to give it meaning within the context of statute and regulation. The pH limit (S1 and footnote b) clearly states that any excursions below or above the stated range "shall be considered violations." (Emphasis added). Moreover, the permit requires appellant at all times to properly operate and maintain its facility to achieve compliance with its permit (G.2), and to control production and discharges, including when the primary source of power fails, to maintain compliance with the permit (G.3). The permit's incorporation of 40 CFR 122.41 is partial, and only fills in gaps not covered by the specific permit.

Reading the permit as a whole, in the context of a strict liability state water pollution statute, we conclude that the upset

defense is not a part of the permit's pH effluent limitations. See, Sierra Club, supra.

VI

Appellant argues unconvincingly that because the State has neither designated the Columbia River a "water-quality limited segment," nor done a waste load allocation for the River, the pH limitation is therefore not based on water quality concerns and the upset defense exists.

Denial of an upset defense's existence does not depend on there being a demonstrated violation of water-quality standards. The key factor is the purpose of the limitation in question not the results of their violation. All effluent limitations are based to some degree on technology. In some cases the level of control to be met is required simply because it can readily be achieved. In other cases the limits are imposed in order to protect against perceived danger of adverse effects. In the latter case the limitations cannot sensibly be characterized as "technology-based" as that term is used in 40 CFR 122.41(n).

Here, DOE has imposed a more stringent state pH limit on Weyerhaeuser by making the federal "variance" provisions inapplicable to exceedances such as those at issue. DOE has done this because of a concern for water quality. Under these circumstances, we are

pursuaded that the pH range applicable to Weyerhaeuser's Longview operations does not qualify as "technology based" for the purposes of the upset defense regulation.

We note that the limits themselves are not under appeal. This is an enforcement action which raises the question of how the established limits should be characterized. Therefore, we need not and do not consider issues about whether Weyerhaeuser was appropriately informed of the water quality basis for the limitations in the permit issuance process.

VII

We further conclude that even if the upset defense were a part of the permit, appellant did not prove such an affirmative defense in this case. Our conclusion rests on two findings any one of which would be enough to preclude the defense:

1) the noncompliance was attributable to inadequate treatment facilities and inadequate maintenance, and not to factors beyond the reasonable control of the permittee (Finding of Fact XII); and 2) the instances of noncompliance are part of a pattern of violations and not, therefore, each an exceptional incident. (Finding of Fact XIV). See, SPIRG of New Jersey v. Georgia Pacific, 615 F.Supp. 1419, 1431 (1985).

VIII

In sum, we conclude appellant Weyerhaeuser has exceeded the pH

effluent limitations in NPDES Permit No. WA-000012-4, and that no lawful defense is available. The question remaining, then, is whether the penalties assessed were appropriate.

RCW 90.48.144 authorizes the issuance of a penalty for the violation of the terms of a waste discharge permit of "up to ten thousand dollars a day for every such violation". The statutory ceiling on this penalty was raised in 1985, reflecting a legislative intention to treat actions contravening the water pollution control statute with increased seriousness. Section 2, Chapter 316, Laws of 1985. Bud Vos v. DOE, PCHB No. 86-149 (May 8, 1987).

IX

Under RCW 90.48.144:

> The penalty amount shall be set in consideration of the previous history of the violator and the severity of the violations impact on public health and/or the environment in addition to other relevant factors.

We have in past cases, regarded corrective actions taken after noncompliance by the violator as among the "other relevant factors," See, e.g., Jensen's Dairy v. DOE, PCHB No. 84-240 (1984). Remedial actions are relevant because the principal purpose of civil penalties is to influence behavior and deter future violations. See Cosden Oil Co. v. DOE, PCHB 85-111, (1986). The most influential post-violation activities therefore, are those occurring between the time the violation occurred and the time the penalty was assessed.

X

Applying the several factors to be weighed in this case, we are impressed particularly by the history of violations - looking back at the Weyerhaeuser Longivew complex as a whole and at the pH problem in particular.

Given such a continuing pattern of violations, the assessment of penalties even after the company had proposed corrective measures was consistent with the statutory purpose. The idea is to apply the heat until the problem is solved. Where the problem has remained unsolved prior to the issuance of the penalty, proposals then extant for correction do not justify wholesale mitigation. This is especially true here where the exceedances which occurred were of a type and magnitude which could reasonably have been foreseen and prevented by obvious means.

Moreover, the failure to present evidence on demonstrated harm does not much affect the appropriateness of penalty amounts in a NPDES permit violation case. The whole premise of the federal Clean Water Act, which the state implements through permit issuance under its own statutes, is that environmental harm does not need to be shown. The scheme is, in general, one of strict liability for unlawful discharges. See SPIRG, supra, at 1424. In the broad sense, harm is legislatively presumed.

Nonetheless, we conclude that some recognition should be given to

Weyerhaeuser's preliminary efforts in December 1986 to plan for a remedy of the situation, before issuance of the $20,000 penalty No. DE 87-103. We believe some lowering of that penalty is merited.

XI

Any Finding of Fact which should be deemed a Conclusion of Law is hereby adopted as such.

From these Conclusions of Law the Board enters this

ORDER

Department of Ecology Order No. DE 86-714 is AFFIRMED in its entirety. Order No. DE 87-103 is reduced by $7,500 to $13,500 and AFFIRMED in all other respects.

SO ORDERED this 28th day of March, 1988.

POLLUTION CONTROL HEARINGS BOARD

JUDITH A. BENDOR, Presiding

WICK DUFFORD, Chairman

[See Dissenting Opinion]
LAWRENCE J. FAULK, Member

DISSENTING OPINION - LAWRENCE J. FAULK
PCHB Nos. 86-224 & 87-33

INTRODUCTION

I respectfully dissent from the majority opinion. It seems to me that for this Board to impose two fines totaling $22,500 (reduced from $30,000 imposed by DOE) for three minor infractions; one of which was caused by a power outage not within appellant's control, for a total time of infractions something less than one hour is not justified under the circumstances of this particular case.

The following opinion sets out my reasoning for that judgment.

FINDINGS OF FACT

I

The NPDES permit alleged to have been violated was issued by the Department of Ecology to Weyerhaeuser on October 7, 1985. The permit authorizes Weyerhaeuser to discharge wastewaters to the Columbia River pursuant to conditions and limitations.

The permit requires that the pH of wastewater discharged pursuant to the permit retain within a specific range, i.e., between 5.0 and 9.0 all times. The permit requires that the pH of the discharge be monitored and recorded continuously. The permit regulates discharges through two outfalls designated by Weyerhaeuser as 001 and 002. The total volume of water discharged through these outfalls averages about 65 million gallons per day.

II

Although by far the greatest volumes of wastewater discharged through outfall 001 and 002 is generated by Weyerhaeuser's pulp and paper manufacturing operations at Longview, Weyerhaeuser's chlorine plant discharges clean wastewaters (i.e., non-contact cooling water and stormwater from the chlorine plant area) to the effluent lines that carry wastewaters from the pulp and paper facilities' sewage treatment plant to the Columbia River. Clean wastewaters from the chlorine plant discharged this water amount to approximately three million gallons per day. (Clean wastewaters discharged with the treated pulp and paper effluent through outfalls 001 and 002 do not go through the mill's sewage treatment plant.)

III

Weyerhaeuser's chlorine plant is located along the Columbia River adjacent to the company's Longview pulp and paper manufacturing facility. The chlorine plant was put into operation in 1955. It has been expanded and processes changed in phases during 1967 and 1975. The chlorine plant produces chlorine, sodium hydroxide, hydrogen gas, hypochlorite, and hydrochloric acid. Approximately 80 emplyees work at the chlorine plant in three shifts. The plant operates 360 days a year. The chlorine plant covers about 25 acres.

IV

There are three other chemical manufacturing facilities in this

state comparable to Weyerhaeuser's chlorine plant. They are operated by Georgia-Pacific in Bellingham, and Occidential Chemical Company and Pennwalt Corporation, both in Tacoma. These three facilities have wastewater discharges to waters of the state which are regulated by NPDES permits issued by the Department of Ecology. The Occidental and Pennwalt permits allow short term variations in pH not allowed by Weyerhaeuser's permit. The exceedences at issue here would not have been reportable violations of the Occidental or Pennwalt permits.

V

On July 27, 1986, Weyerhaeuser discharged wastewaters with a pH below the minimum of 5.0 for 14 minutes. The minimum pH reached that day was 1.5. This low pH discharge occurred when a specific gravity sight glass in the chlorine plant failed and a spill of concentrated hydrochloric acid resulted. The leaking acid escaped to the chlorine plant clean water sewer. The operators of the chlorine plant quickly detected the leak and shut off the acid. Weyerhaeuser had equipment to neutralize the acid in place. This equipment consisted of a lime rock sump and an apparatus to detect the pH of wastewaters in the clean water sewer and to, if necessary, automatically inject sodium bicarbonate to the sewer. Both these systems were in operation, but a discharge of low pH wastewater occurred nonetheless. Weyerhaeuser claimed in its letter report to the Department of Ecology covering this incident, and before this Board, that the July 27, 1986 incident should be excused as an "upset."

VII

On October 23, 1986, at approximately 5:00 a.m., the chlorine plant suffered a plant-wide power outage. The power outage was caused by a failure in equipment owned and maintained by Cowlitz County PUD. The power outage disabled the chlorine plant's pumps, pH probes and pH neutralization apparatus. Disabling the plant's pumps led to widespread flooding and to contamination of the plant's clean water sewer with high pH caustic. By the time partial power was restored two hours later the caustic contamination was in the clean water sewer downstream from the caustic neutralization apparatus.

When partial power was restored, one of the three pumps available to move water in the sewer from the chlorine plant to the pulp mill's effluent lines, through which it would flow to the Columbia River through outfalls 001 and 002, was started at a reduced rate intended to lower the level of standing water in the chlorine plant while avoiding any pH violation. This effort initially was not a complete success. There was a 24 minute period when the pH of the wastewaters discharged through outfalls 001 and 002 was higher than the permitted maximum of 9.0. The highest level reached was 11.3.

Weyerhaeuser's Region Environmental Engineer phoned the Department of Ecology on October 24, 1986, to report the upset and resulting pH exceedence. Weyerhaeuser contended before this Board that the incident was an "upset."

VIII

On November 12, 1986, performance of routine maintenance activities at the chlorine plant caused the clean water sewers to become contaminated with caustic. The caustic in the clean water sewers was detected by the chlorine plant's pH probes and sulfuric acid was automatically pumped into the sewer to neutralize the caustic. The acid did neutralize the caustic, but due to a malfunction of the acid flow controller, much more acid was injected than was necessary. The chlorine plant operators quickly shut off the acid flow when the low pH in the sewer was shown on their instruments. There was, nevertheless, a 23 minute period when the wastewaters discharged through outfalls 001 and 002 had a pH of less than the permitted minimum of 5.0. The minimum pH reached was 2.0. Subsequent investigation indicated that excess acid was added because the control mechanism on the acid injection pump stuck in an "on" position.

Weyerhaeuser reported this incident as an "upset" to the Department of Ecology and maintained that position before this Board.

IX

Weyerhaeuser has maintained in recent years an exceptionally high rate of compliance with the pH limitation in permit WA 000012-4. The rate of compliance was over 99% for 1984 and 1985. For 1986, Weyerhaeuser's rate of compliance exceeded 99.9%. For 1987, as of the

date of the hearing, Weyerhaeuer had maintained a 100% compliance rate. The U.S. Environmental Protection Agency, in a development document prepared in conjunction with 1980 modifications to the federal pH exception policy (see, 40 CFR 401.17), recognized that 99% compliance was the best that could be expected of "best practical control technology."

X

Weyerhaeuser has had problems in the past maintaining 100% compliance with the pH limitation. As one way to improve its ability to control pH, Weyerhaeuser in 1980 began to pump the chlorine plant's clean water discharge into the effluent lines connecting the pulp mill's sewage treatment plant to outfalls 001 and 002 instead of directly to the Columbia River. In 1985 and 1986, following notice to the Department of Ecology, Weyerhaeuser instituted an additional series of projects to enhance its ability to control the pH of wastewaters discharged from the chlorine plant. Those projects cost Weyerhaeuser approximately $117,000.

In December, 1986, in a letter to the Department of Ecology, Weyerhaeuser identified an additional package of projects to enhance its ability to control pH. Those projects were fed back to Weyerhaeuser in the form of Order DE 87-104. Completion of that package cost Weyerhaeuser approximately $66,000.

The 1985-86 package of control enhancement projects was completed before the July 27, pH exceedence. Weyerhaeuser had enjoyed six months of 100% compliance with the pH limit before the July 27 incident. The projects ultimately incorporated into Order DE 87-104 were proposed to the Department of Ecology before the notice of the $20,000 penalty appealed here was issued to Weyerhaeuser.

XI

The Department of Ecology admitted that it has no evidence that actual injury to any aquatic life in the Columbia River resulted from the three pH exceedences at issue here. The evidence which was presented was that sufficient dilution was available at the time the discharges occured to, at least, bring the pH of their water at the boundary of Weyerhaeuser's dilution zone to levels which could pose any threat to aquatic life. The evidence was, further, that the area of river in the vicinity of the outfall is used by fish only as a migration pathway and that the very short duration of the pH exceedences ruled out any measureable adverse effects on fish.

XII

The Columbia River in the vicinity of Weyerhaeuser's outfalls 001 and 002 is not a "water quality limited" stream segment for pH. The Department of Ecology did not prepare "total maximim daily loads," a "load allocation" for pH, and a "waste load allocation" for pH of wastewaters discharged from Weyerhaeuser's Longview facility. See, 40 CFR 130. esp. 130.7.

XIII

The Department of Ecology's Industrial Sections' pH policy was cited by the Department as the basis for pH limitation in NPDES permit WA 000012-4. The Industrial Section in that policy rejected the EPA pH exemption policy because the EPA policy was seen as allowing potentially toxic wastewaters to be discharged without controls. The Industrial Section pH policy did not identify the need to meet water quality standards for pH as the basis for the pH limitation imposed.

XIV

The Department of Ecology prepared a "fact sheet" concerning NPDES permit WA 000012-4 when that permit was published in draft prior to issuance. The "fact sheet" includes Ecology's identification of the basis of effluent limitations in the permit. The Department of Ecology did not identify the need to meet water quality standards in the Columbia River as the basis for the pH limitation in the fact sheet.

XV

The pH limitation in the draft permit was commented upon by Weyerhaeuser. The Department of Ecology acknowledged Weyerhaeuser's comments, but did not change the draft permit prior to issuance with respect to pH. The Department of Ecology in its written response to Weyerhaeuser's comments did not identify the need to meet water quality standards as the basis for the pH limitations. The Department

of Ecology did not connect water quality standards with the pH limitation in any oral discussions with Weyerhaeuser personnel. The Department of Ecology did, in the fact sheet, the Industrial Section policy, in its written response to Weyerhaeuser's comments and in oral statements to Weyerhaeuser personnel identify the basis for the permit limits as being the requirement under state law to use all known, available and reasonable methods of waste treatment.

XVI

Any Finding of Fact deemed a Conclusion of Law is hereby adopted as such. From these Findings of Fact, I make these

CONCLUSIONS OF LAW

I

An "upset" is defined by EPA as

> . . . an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee.

40 CFR 122.41(n)(1). An "upset" is an affirmative defense to liability in an action based on noncompliance with NPDES permit effluent limitations.

II

In Condition G.12 included in NPDES permit WA 000012-4, the Department of Ecology gave Weyerhaeuser the ability to claim the "upset" defense as established by EPA's regulations.

III

The Board should conclude that the "upset" defense applies to the three pH exceedences at issue in this case and, therefore, that Weyerhaeuser has no liability for these civil penalties assessed. The basis for that judgment is as follows:

A. Weyerhaeuser established that the three incidents were "exceptional" in that none of the basic causes of the three pH exceedences had occurred before or was considered likely. While the Department of Ecology claimed that Weyerhaeuser had many pH exceedences, the Department's evidence predated the improvement projects that Weyerhaeuser undertook in 1985, 1986 and 1987. Other than this generic indictment, the Department did not deny with evidence that the three incidents leading to penalties appealed here were extraordinary, unusual events.

B. There was no evidence that the three pH exceedences were anything but "unintentional and temporary" incidents of noncompliance with Weyerhaeuser's pH limit.

C. The Board should conclude that the pH limit included in Weyerhaeuser's permit is a technology-based permit effluent limitation

within the meaning of the EPA regulations cited above. Remarks published by EPA in 1984 at the time of this regulation was reviewed (see, 49 Fed. Reg. 38038-38039 (Sept. 26, 1984)) indicate clearly that EPA intended to include under the rubic of technology-based permit effluent limitations any permit limitations not required specifically to assure that water quality standards would be met. Weyerhaeuser showed that the Department of Ecology based its permit limitations on the requirement to use all known, available and reasonable treatment technology. While the Department alleged that the pH limitation was based on a requirement to avoid toxic waste discharges, the Department did not establish that the pH limit was specifically included in the permit to meet water quality standards. The Department, indeed, did not even provide a reference to the applicable standard for pH. (See, WAC 173-201-045(2)(c)(v)).

D. All three pH exceedences were caused by factors beyond Weyerhaeuser's reasonable control. In July, 1986, the exceedence was caused by a leak in one of two specific gravity sight glasses which had been installed literally decades before and had functioned without incident up to the time the acid spill occurred. In October, 1986, a plant-wide power outage resulted in caustic contamination of the clean water sewer. The electrical equipment which failed was not owned or operated by Weyerhaeuser. EPA, in the comments referred to above, uses a power outage as an example of an event which might constitute

an "upset". In November, 1986, automatic neutralization apparatus which successfully neutralized caustic contamination in the clean water sewer struck in an "on" position and resulted in a low pH discharge.

IV

I have considered the Department of Ecology's arguments against application of the "upset" defense here and reject them. My conclusions in that regard are as follows:

A. The Department of Ecology claimed that the three pH exceedences occurred because Weyerhaeuser had inadequate treatment facilities. The Department used as evidence of this contention the fact that the violations occurred and that Weyerhaeuser's subsequent installation of additional control equipment would have prevented the violations. I do not find this pursuasive. The Department had no evidence that Weyerhaeuser's treatment facilities were inadequate before these incidents occurred. The Department of Ecology's claim that the violations themselves are proof of inadequate treatment facilities basically denies the whole concept of the "upset" defense.

I therefore reject that interpretation as too narrow. I do not believe EPA adopted regulations allowing the "upset" defense and at the same time defined the defense out of existence. That, however, is the import of Ecology's argument.

B. The Department claimed that Weyerhaeuser failed to show the chlorine plant was being operated properly at the time the July and November pH exceedences occurred. As evidence, with respect to the July incident, the Department claims that a lime rock sump was not being maintained. With respect to the November incident the Department claims that chlorine plant personnel were draining caustic from a drowning tower at a rate which exceeded capacity of a pipe carrying the caustic to the pulp mill's sewage treatment plant. I do not accept the Department's claim. In neither event was the alleged improper operation the proximate cause of the pH exceedence. Weyerhaeuser established that the lime rock sump, even if filled to capacity, likely would not have prevented the pH exceedence. This is because the chlorine plant's operators, when they designed the automatic acid neutralization facilities, relied on past experience as their guide and a spill of the magnitude which occurred in July, 1986, had not happened before that time. While I could have found the Department's argument pursuasive with respect to the November 1986, incident if the pH exceedence had been due to the discharge of excess caustic, that was not the cause of the exceedence. Rather, the problem was that due to a malfunctioning flow meter excess acid was discharged.

C. The Department contends that Weyerhaeuser failed to provide it with the proper notice of the upsets involved here. I reject this contention.

In the first place, the applicable EPA rule is not clear whether telephone notice and five day written notice must be provided when both sides agree that the upset posed no threat of harm to public health or the environment. The Department did not get notice that Weyerhaeuser would be claiming the "upset" defense by letter and, in one incident by way of a telephone call within 24 hours. Weyerhaeuser provided this notice and its explanation of the three incidents in writing to the Department long before the Department issued the penalties appealed here.

In the second place, I am disinclined to strictly apply the notice requirement as the Department interprets it. The Department did not present evidence that it informed Weyerhaeuser of the Department's interpretation of the notice requirement. The Department did not even bring up the notice issue until final argument. The Department received notice of the permit exceedences in the usual way and in the way the permit requires. The Department did not present any evidence to show that it suffered prejudice by receiving notice when it did. The Department, in fact, objected to questionning about the Department's response when a notice of an "upset" is received. The Department's theory in this case acknowledged that the Board's review is de novo, and that the Board considers the Department's issuance of a notice of penalty to be equivalent to a summons and complaint. I find these acknowledgements

to be inconsistent with the Department's claim that Weyerhaeuser lost the "upset" defense by failing to comply strictly with the Department's interpretation of EPA's notice regulation.

V

I conclude that Weyerhaeuser has no liability for civil penalties based on noncompliance with the pH limitation on July 27, October 23 and November 1, 1986. I conclude that the Department of Ecology's two notices of penalty appealed here should be deemed void and of no effect.

VI

Even without resort to the "upset" defense, I find little justificaton for these exorbitant penalties and would reduce the amount of any penalties to zero. Clearly none of the incidents which led to noncompliance was intentional. They were all exceedingly short duration. The evidence was that none of the incidents caused any harm to aquatic life. These incidents occurred after Weyerhaeuser had on its own spent over $100,000 to improve its ability to control the pH of clean wastewaters discharged from the chlorine plant and had enjoyed six months of 100% compliance. Weyerhaeuser proposed even more improvements on its own in December, 1986 before the $20,000 notice of penalty appealed here was imposed. I have concluded that Weyerhaeuser's noncompliance incidents should be excused as "upsets"

but even if they were not, I would find no justification for any penalties based on these incidents.

LAWRENCE J. FAULK, Member

BEFORE THE POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

BALLARD CONSTRUCTION COMPANY, INC., Appellant,	PCHB NO. 87-37
v.	
PUGET SOUND AIR POLLUTION CONTROL AGENCY, Respondent.	FINAL FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

THIS MATTER, the appeal of a notice and order of civil penalty for $1,000 for alleged violations of asbestos removal regulations at Sea-Tac Airport, King County, came on for hearing before the Board, Wick Dufford (presiding), Lawrence J. Faulk and Judith A. Bendor, on October 12, 1987, in Seattle, Washington. Pursuant to RCW 43.21B.230 respondent Puget Sound Air Pollution Agency (PSAPCA) gave notice of formal hearing. The matter was reported by Lesley Gray of Evergreen Court reporting.

Appellant Ballard Construction Co., Inc. was represented by its senior estimator and secretary, Fred Hedman. PSAPCA was represented by its attorney, Keith D. McGoffin.

Witnesses were sworn and testified. Exhibits were admitted and examined. Argument was heard. From the testimony, evidence and contentions of the parties, the Board makes these

FINDINGS OF FACT

I

PSAPCA is an activated air pollution control authority empowered under the state's Clean Air Act to carry out a program of air pollution prevention and control, including the enforcement of work practices for asbestos removal. Sea-Tac Airport is within the area of PSAPCA's jurisdiction.

The agency has filed certified copies of its regulations with the Board. We take official notice of them.

II

Ballard Construction Co. Inc., is a general contractor located in Seattle, Washington, which in the fall of 1986 was acting as a subcontractor to Wick Construction Company in performing an asbestos removal project in the penthouse area of Sea-Tac International Airport.

III

On November 4, 1986, a day or two after Ballard completed its asbestos removal work in the penthouse, two PSAPCA inspectors arrived on the scene and inspected the area. In two rooms on tops of beams or air ducts they discovered loose pieces of material that appeared to be asbestos. The material was dry and friable. Photographs were taken

of the beam tops and air ducts showing the debris observed. In total, the inspector found about two cupfuls of this loose material.

The inspectors took samples of the loose material from both rooms and transmitted the samples to the Department of Ecology laboratory. Subsequent analysis showed the samples to contain 5 to 10 percent chrysotile, a form of asbestos.

IV

The penthouse is a storage area above the airport's observation deck and messanine. The inspectors gained access through open stairways and unlocked and open doors. The entry into the removal area was through a single slitted sheet of plastic over a doorway. No warning signs were in evidence.

V

After the laboratory analyses were received, PSAPCA sent three Notices of Violation to Ballard Construction, Wick Construction Company, and the Port of Seattle asserting, in the aggregate, the violation of six different provisions of the agency's regulations. On February 3, 1987, Notice and Order of Civil Penalty No. 6630 was sent to the same entities assessing a $1,000 fine for the violations cited in the Notices of Violation. Ballard Construction appealed the penalty to this Board on February 25, 1987.

VI

Prior to the PSAPCA inspection, air sampling had been performed at

Ballard's job site in the penthouse and "clean airs" had been received, i.e., asbestos counts in the ambient air were found to be below levels requiring special controls for exposure protection of workers.

VII

Ballard advised that asbestos removal in the penthouse had been a difficult job, spanning several months of work. The task was to strip off old fire proofing material which had been sprayed on corrugated metal. While performing this task, Ballard had used qualifed workers, appropriate removal techniques and had properly closed-off the area from casual access.

When the company completed the stripping they attempted to seal the beams with a sealant spray. Then, after air sampling was performed, they removed their equipment and dismantled most access barriers.

The inspection revealed that use of the sealant was not totally effective. The asbestos fragments found were loose; they did not adhere to the beams. Ballard theorized that the asbestos material found might have been shaken free by jackhammering on the roof by the general contractor. Be this as it may, some of the loose fragments found bore evidence of a light coating of red sealant on top and when moved no sealant was visible underneath where they had lain.

We find that the fragments were on the beams during the time Ballard was still performing its removal job and were left there in a

dry friable and unsealed condition by Ballard's workers.

VIII

Ballard has no prior record of violation of PSAPCA's regulations.

IX

Asbsestos is the subject of special federal work practice regulations which function as requirements for the control of air emissions under Section 112 of the Federal Clean Air Act. These regulations are among the National Emission Standards for Hazardous Air Pollutants (NESHAPS), standards related specially to keeping the air free of substances which present a high health hazard.

In Article 10 of its Regulation I, PSAPCA has adopted its own standards for the removal and disposal of asbestos which are at least as stringent as the federal standards.

X

Any Conclusion of Law which is deemed a Finding of Fact is hereby adopted as such.

From these Facts, the Board comes to these

CONCLUSIONS OF LAW

I

The Board has jurisdiction over these persons and these matters. Chapters 70.94 and 43.21B RCW.

II

The Notice and Order of Civil Penalty alleges the violation of six specified provisions of PSAPCA's Regulation I, Article 10, as follows:

1. Section 10.04(b)(2)(ii) . . . : Failure to adequately wet asbestos materials when being stripped from facility components.
2. Section 10.04(b)(2)(iii)(A) . . . : Failure to adequately wet asbestos materials that have been removed or stripped and to ensure they remain wet until collected for disposal.
3. Section 10.04(b)(2)(iii)(B) . . . : Failure to collect asbestos materials that have been removed or stripped for disposal at the end of each working day.
4. Section 10.04(b)(2)(iii)(C) . . . : Failure to contain asbestos materials that have been removed or stripped in a controlled area at all times until transported to a waste disposal site.
5. Section 10.05(b)(1)(i) . . . : Failure to treat all asbestos-containing waste material with water.
6. Section 10.05(b)(1)(iv) . . . : Failure to treat all asbestos-containing waste materail with water and, after wetting, seal in leak-tight containers, while wet.

III

We conclude that the material was "asbestos material" as defined by Section 10.02(e). No contention was made to the contrary. The question, then, is whether such material was properly handled.

IV

We conclude that the agency failed to demonstrate a violation of Section 10.04(b)(2)(ii). That provision deals with procedures <u>during</u> the actual stripping process. No evidence shows that Ballard failed to wet the material properly while it was being removed.

V

We conclude that Sections 10.04(b)(2)(iii)(A), (B) and (C) were violated when dry, loose debris was left on the beams after the job had been completed.

The uncollected fragments found had not been kept wet until "collected for disposal," i.e. until sealed in leak-tight bags. See Section 10.02(h). The fragments had not been collected in bags at the end of the last working day. The area had by the time of inspection, ceased to be a "controlled area," i.e. an area to which only certified asbestos workers have access. See Section 10.02(i).

VI

Section 10.05 appears to be intended to apply to the disposal process, following the removal process which is governed by Section 10.04. The two sections overlap to some degree. Here the asserted violations of Section 10.05 appear to cover the same behavior that we have already dealt with above in connection with Section 10.04. Therefore, we decline to find separate additional violations of Section 10.05.

VII

The purpose of civil penalties is to change behavior, to provide an impetus to future compliance. The amount of the penalty should be appropriate to promote this end, taking into consideration factors including the seriousness of the violation and the prior behavior of the violator.

Because of the special status of asbestos as a hazardous air pollutant any violation of rules designed to prevent its escape into the air is a matter of serious concern. Here, however, there are some

mitigating considerations. Although the friable fragments were found in an area which anyone could enter, the site was a storage area remote from common public use. The location and amounts involved reduced the risk created by appellant's violations. Moreover, appellant has no prior record of violation. We therefore believe the penalty is excessive. Accordingly, the Order set forth below is appropriate.

VIII

Any Finding of Fact which is deemed a Conclusion of Law is hereby adopted as such.

From these Conclusions, the Board enters this

ORDER

Items 1, 5 and 6 in Notice and Order of Civil Penalty No. 6630 are reversed. Items 2, 3 and 4 are affirmed. The penalty is abated to $600.

DONE this 17th day of March, 1988.

POLLUTION CONTROL HEARINGS BOARD

Wick Duffard

WICK DUFFARD, Presiding

3/15/88

LAWRENCE J. FAULK, Member

Judith A. Bendor

JUDITH A. BENDOR, Member

BEFORE THE POLLUTION CONTROL HEARINGS BOARD
STATE OF WASHINGTON

JOHN PLAKOS, et al., Appellant, v. State of Washington, DEPARTMENT OF ECOLOGY, TIMOTHY I. McCLELLAND and LARRY O. LOCKE, Respondents.	PCHB No. 87-38 REVISED FINAL FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDER

This case involves John Plakos, et al.'s appeal of the State of Washington Department of Ecology Order (No. DE 87-C122) authorizing issuance of a permit to Timothy I. McClelland and Larry O. Locke to appropriate 123 acre-feet of water per year from groundwater, near Bonaparte Creek, in Okanogan County.

Appellants were represented by Attorney Peg Calloway of Calloway & Howe. Respondent DOE was represented by Assistant Attorney General, Peter R. Anderson. Respondents McClelland and Locke were represented

by Attorney Samuel C. Rutherford of Rutherford & Weston. Court reporter Malinda Avery recorded the proceedings.

A formal hearing was held on February 26, 1988 in Wenatchee and on May 2, 1988 in Seattle. A decision was issued on October 19, 1988. The Department of Ecology filed a Petition for Reconsideration, joined by the other respondents. Appellants filed an Opposition to Reconsideration. A copy of the transcript was filed. After reconsideration, the Board issues this revised decision.

FINDINGS OF FACT

I

Appellants John Plakos, et al., are aggrieved individuals, who own property along Bonaparte Creek and were awarded water rights in the Creek pursuant to adjudication.

II

Respondent State of Washington Department of Ecology ("DOE") is a state agency charged with the allocation and regulation of surface and groundwater usage within the state.

III

Respondents Timothy I. McClelland and Larry O. Locke are individuals who applied on May 2, 1984 to appropriate public groundwater, 200 gallons per minute ("gpm"), 123 acre-feet per year ("afy"), composed of continuous domestic and stock watering (3 afy) use, and primarily summer use irrigation (120 afy) on 60 acres of land.

Prior to the application and resultant permit, the property had a riparian non-diversionary stockwater right (confirmed during Superior Court General Adjudication for Bonaparte Creek) which allows animals to drink directly from the Creek.

IV

On April 10, 1984, a licensed well driller began to dig a well on behalf of Mssrs. Locke and McClellan, at a location 150 feet from Bonaparte Creek, in NW 1/4 NW 1/2 of Section 26 TN. 37 R 28E WM., near State Highway 20 in Okanaogan County. Whether this well is on respondents' property or on appellant Henry Breshear's property, is in dispute and is not the subject of this proceeding.

When the well was completed on August 5, 1984, it was: 118.5 feet deep, 8 inches in diameter, and cased its entire length. The static water level in the well was 15 feet below the top of the well.

V

Based on the McClellan and Locke groundwater application, DOE filed a public notice and conducted an investigation, including several site inspections with fieldwork. The Department received and reviewed five protests.

The public notice of the application incorrectly listed the well as being located at NE 1/4 NW 1/4 of Section 26. The protestors were in fact aware of the well's actual location.

On January 28, 1987 DOE issued a Report of Examination and an Order authorizing issuance of a groundwater permit to McClelland and

Locke for: 200 gallons per minute, 123 afy, for continuous group domestic supply for two homes, stockwatering, and for irrigation of 40 acres from April 1 to October 31 (Order No. DE 87-C122). It is undisputed that two afy of the appropriation is for domestic use for the two homes, and approximately one afy is for stockwatering. The remaining 120 afy is for irrigation.

VI

Appellants filed a timely appeal with this Board, which became our PCHB No. 87-38. During the hearing, appellants contested only that portion of the permit dealing with irrigation (120 afy), and did not challenge the domestic and stockwatering appropriation.

VII

Bonaparte Creek and its tributaries drain 148 square miles of north-central Okanogan County. The Creek flows into the Okanogan River near Tonasket. The Creek's flows vary considerably, from highs of 10 cubic feet per second during spring runoffs, to low periods such as in August and September. During the low periods, surface flows along parts of the Creek may disappear entirely, only to reapper further down the streambed. There are numerous gaining and losing reaches along its length. Surface flows and the groundwater system show interconnections at various locations along the Creek.

VIII

The Bonaparte Creek drainage has been the scene of chronic

surface water supply shortages. The Creek is, and has long been heavily appropriated for irrigation, stockwatering, domestic and municipal uses downstream of respondents' property. During late summer months in dryer years, sufficient water is not available in the Creek to fulfill all water rights senior in priority to the McClelland/Locke application. Indeed, such shortages precipitated the general adjudication of the basin which was completed in 1979.

IX

Recognizing the surface water shortage in the area, the DOE established restrictions regarding Bonaparte Creek as a part of the Okanogan River Basin Plan adopted in 1976. Chapter 173-549 WAC. By these regulations, Bonaparte Creek is closed to further consumptive appropriations during the irrigation season. Groundwater withdrawals which affect surface water flows are likewise prohibited.

X

The McClelland/Locke well is about 150 feet in horizontal distance from Bonaparte Creek, next to a losing reach of the stream. The broad question raised by these appeals is whether pumping from the well, as authorized, is likely to affect flows in the stream to the detriment of prior appropriators.

The issue of hydraulic continuity breaks down into two parts: 1) effects on stream flows in the immediate vicinity of the well and 2) efforts on stream flows in gaining reaches further downstream.

XI

The likely effects of groundwater pumping on streamflow in the immediate vicinity of the well are described in a United States Geological Survey Report entitled "Ground Water - Surface Water Relationships in the Bonaparte Creek Basin, Okanogan County, Washington, 1979-80" (Open-File Report 82-172). The report did not examine the precise stream reach under consideration here, but for a losing reach 2 1/2 - 3 miles downstream states (at p. 26):

> Ground-water pumping near the losing reach of Bonaparte Creek would steepen water-table gradients away from the stream. Where there is a saturated connection between the surface and ground-water flow systems, these steepened gradients would cause increased seepage from the stream to the ground-water system and reduced streamflow. This would not occur if flow beneath the stream was unsaturated or if ground-water levels reached just to the streambed.

All parties agree that this description defines the problem to be resolved in the locale at issue. All parties also agree that the streambed is above the groundwater table. Whether there is or is not a saturated connection between the surface and groundwater flow systems, is, thus, the crux of the matter.

Expert opinion for the DOE is that unsaturated conditions beneath the streambed are likely. Appellants' expert thinks the existing data are inadequate to support such a conclusion for the area in question.

After the presentations of the parties and on the entire record before us, we are convinced that it is more probable than not that withdrawals from the McClelland/Locke well, as authorized, would cause increased seepage from the stream to the groundwater system, reducing stream flows otherwise potentially available to prior appropriators.

XII

The next gaining reach of the Creek below to the McClelland/Locke well site is approximately 1 1/2 miles downstream. The probable effects of pumping the well on gaining reach flows are governed by the time it would take for the impact of the groundwater withdrawals to be felt at such a distance.

DOE's expert estimates that such downstream effects would take three years to manifest themselves and that, then, the result would be to reduce high winter flows rather than cutting into water availability during the lower flows of the irrigation season.

Appellants' expert, however, believes the information on the intervening strata is inadequate to support the agency's estimate. It is their expert's opinion that water is likely to move through the ground faster, affecting stream flows before the system is reset by the seasonal freshet.

We find on the basis of qualitative evidence before us that it is more probable than not that pumping the McClelland/Locke well, as authorized, would have an adverse affect on the availability of water when needed in the gaining reach downstream.

XIII

Return flows from irrigation of the benchland proposed as the place of use by McClelland and Locke are unlikely to offset measurably the impacts of the groundwater withdrawals on streamflows. The waters withdrawn must, in effect, be regarded as removed from the Bonaparte Creek system.

XIV

Pump tests of the well in question indicate that it is not capable of yielding water at the 200 gallons per minute rate of withdrawal authorized by DOE. Therefore, in order to perfect the irrigation appropriation proposed, it is likely that the permittees would be obliged to seek permission for additional points of withdrawal, the consequences of developing which are not now known. These issues have not been litigated herein.

However, there is no dispute that the present well is capable of yielding sufficient water to satisfy the domestic and stockwatering uses requested.

XV

Any Finding of Fact which is deemed a Conclusion of Law is hereby adopted as such.

From these Findings, the Board comes to these

CONCLUSIONS OF LAW

I

The Board has jurisdiction over these parties and this matter.

Chpt. 43.21B RCW. The review is conducted de novo, on the record.

II

Subject to existing rights, all waters within the State belong to the public. RCW 90.03.010. This principle was extended to groundwater through RCW 90.44.020. Applications for permits for appropriation of underground water are through incorporation by reference, subject to the same evaluation criteria as apply to surface water appropriations. RCW 90.44.060.

III

The application procedure for the appropriation of public groundwater is also defined by reference in RCW 90.44.060. We conclude that permittees have followed the proper application procedure.

We further conclude that the public notice of the application was not defective. No prejudice from the error regarding well location was proven. To the contrary, evidence established numerous protests were received, which DOE evaluated.

IV

A permit to appropriate water shall be issued by DOE:

> . . . if it shall find that there is water available for appropriation for a beneficial use, and the appropriation thereof as proposed in the application will not impair existing rights or be detrimental to the public welfare . . .

> But where there is no unappropriated water in the proposed source of supply, or where the proposed use conflicts with existing rights, or threatens to prove detrimental to the public interest . . . it shall be the duty of the department to reject such application and refuse to issue the permit asked for. RCW 90.03.290. [Emphasis added]

V

The purpose of the system of prior approval by permit is to prevent problems from arising, rather than dealing with them solely through after-the-fact enforcement. RCW 90.03.290 requires that DOE investigate each water right application. A permit may be issued only when that investigation allows the agency to give affirmative answers to all the statutory criteria. Where the data are not sufficient to support such affirmative answers, the agency is justified in denying permission to proceed. See Blackstar Ranch & William Eckerich v. DOE, PCHB No. 87-19 (February 19, 1988).

Here the agency has granted permission to proceed where the evidence supports the proposition that rights would be impaired. Under the facts, we conclude that this approval was improper.

In the context of water-short Bonaparte Creek, where difficulties of stretching the supply to meet the demand have long been a problem, we conclude on review of the evidence that it is more probable than not that existing rights would be impaired by the proposed irrigation development, contrary to RCW 90.03.290. In so concluding, we observe that the Department has done a conscientious job within the constraints of time and budget.

VI

Any Conclusion of Law which should be a Finding of Fact is hereby adopted as such.

From these Conclusions, the Board enters this

ORDER

The approval of Water Rights Application No. G4-28459 is REVERSED for the portion granting appropriation for 120 acre-feet per year for irrigation.

SO ORDERED this 12th day of December 1988.

POLLUTION CONTROL HEARINGS BOARD

JUDITH A. BENDOR, Presiding

WICK DUFFORD, Chairman