

**INTERFAITH COMMUNITY  
ORGANIZATION, et al.,  
Plaintiff(s),**

v.

**HONEYWELL INTERNATIONAL,  
INC., et al, Defendant(s).**

Civil Action No. 95-2097(DMC).

United States District Court,  
D. New Jersey.

May 21, 2003.

Non-profit community organization and its members brought action against successor-in-interest to chemical manufacturer and current owners and lessees of contaminated chromium production site under Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and state law, seeking declaratory and injunctive relief. Lessee of building on site brought cross-claims against successor. The District Court, Cavanaugh, J., held that: (1) successor's activities involving chromium waste presented imminent and substantial endangerment to health and environment; (2) disposal of and failure to remove waste constituted abnormally dangerous activity; (3) successor was "covered person" under CERCLA; (4) lessee qualified for third party defense to CERCLA liability; (5) lessee's cross-claim for negligence was time-barred; and (6) successor was not entitled to contribution from lessee.

Judgment for plaintiffs.

**1. Environmental Law** ⇌438

Liability under Resource Conservation and Recovery Act (RCRA) requires showing that defendant has contributed to,

or is contributing to, past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste that may present imminent and substantial endangerment to health or environment. Solid Waste Disposal Act, § 7002(a)(1)(b), as amended, 42 U.S.C.A. § 6972(a)(1)(b).

**2. Environmental Law** ⇌445(1)

Successor-in-interest to chromium manufacturer contributed to past or present handling, storage, treatment, transportation, or disposal of solid or hazardous waste that presented imminent and substantial endangerment to health and environment, as required to hold successor liable under Resource Conservation and Recovery Act (RCRA); manufacturer used site to dispose of approximately one million tons of chromium waste, waste was cause of extensive contamination of soil, groundwater, surface water and sediments at and near site, and successor's non-compliance with environmental standards governing cleanup presented strong possibility of endangerment. Solid Waste Disposal Act, § 7002(a)(1)(b), as amended, 42 U.S.C.A. § 6972(a)(1)(b).

**3. Environmental Law** ⇌442

"Imminent and substantial endangerment" to environment exists, as required to establish liability under Resource Conservation and Recovery Act (RCRA), if there is reasonable cause for concern that someone or something may be exposed to risk of harm if remedial action is not taken. Solid Waste Disposal Act, § 1002 et seq., as amended, 42 U.S.C.A. § 6901 et seq.

See publication Words and Phrases for other judicial constructions and definitions.

**4. Environmental Law** ⇌442

To establish liability under Resource Conservation and Recovery Act (RCRA), plaintiff need not show actual harm to

health or environment; rather, it is enough to show that such endangerment may exist. Solid Waste Disposal Act, § 1002 et seq., as amended, 42 U.S.C.A. § 6901 et seq.

**5. Environmental Law** ⇌442

“Endangerment” to health or environment, as required to establish liability under Resource Conservation and Recovery Act (RCRA), is present if there is merely threatened or potential harm; thus, only risk of harm, rather than actual harm, must be imminent. Solid Waste Disposal Act, § 1002 et seq., as amended, 42 U.S.C.A. § 6901 et seq.

See publication Words and Phrases for other judicial constructions and definitions.

**6. Environmental Law** ⇌442

Disposal site for chromium waste presented risk of imminent danger to public health and safety and imminent and severe damage to the environment, as required to hold successor-in-interest to chromium manufacturer liable under Resource Conservation and Recovery Act (RCRA); chromium levels at waste disposal site substantially exceeded acceptable standards under New Jersey law, chromium was hazardous to humans and environment through current and future pathways, and successor’s interim remedial measures were not sufficient to abate imminent endangerment. Solid Waste Disposal Act, § 1002 et seq., as amended, 42 U.S.C.A. § 6901 et seq.; N.J.S.A. 58:10B-1 et seq.

**7. Environmental Law** ⇌442

To prevail on claim of “imminent and substantial endangerment” under Resource Conservation and Recovery Act (RCRA), plaintiff need not establish incontrovertible harm to health and environment; rather, plaintiff need only demonstrate that defendant’s activities *may* present such endangerment. Solid Waste

Disposal Act, § 7002(a)(1)(B), as amended, 42 U.S.C.A. § 6972(a)(1)(B).

**8. Environmental Law** ⇌442

“Imminent and substantial endangerment” to health or environment, for purpose of claim brought under Resource Conservation and Recovery Act (RCRA), exists when buried hazardous waste poses constant danger to groundwater. Solid Waste Disposal Act, § 7002(a)(1)(B), as amended, 42 U.S.C.A. § 6972(a)(1)(B).

**9. Environmental Law** ⇌445(1)

Lessee of building on property subdivided from chromium waste disposal site did not engage in disposal or other relevant activity related to waste, and thus could not be held liable under Resource Conservation and Recovery Act (RCRA); lessee did not actively manage solid or hazardous waste, passive migration of contaminants from lessee’s site did not constitute “disposal” of waste, and lessee’s removal of abandoned drums and handling and disposal of petroleum from property were unrelated to chromium waste at issue. Solid Waste Disposal Act, § 7002(a)(1)(B), as amended, 42 U.S.C.A. § 6972(a)(1)(B).

**10. Negligence** ⇌305

To prevail on strict liability claim under New Jersey law for disposal of hazardous waste, plaintiff must demonstrate that: (1) defendant’s disposal constituted abnormally dangerous activity, and (2) such activity has harmed plaintiff.

**11. Negligence** ⇌305

To determine whether defendant’s actions constitute “abnormally dangerous activity,” as may subject defendant to strict liability under New Jersey law, court must consider: (1) existence of high degree of risk of some harm to person, land or chattels of others; (2) likelihood that harm that results from it will be great; (3) inability to

eliminate risk by exercise of reasonable care; (4) extent to which activity is not matter of common usage; (5) inappropriateness of activity to place where it is carried on; and (6) extent to which its value to community is outweighed by its dangerous attributes.

#### 12. Negligence ⇨305

Court's determination whether defendant's activity is "abnormally dangerous," as may subject defendant to strict liability under New Jersey law, must be made on case-by-case basis, taking all relevant circumstances into consideration.

#### 13. Negligence ⇨305

Manufacturer's on-site disposal of hazardous chromium waste constituted "abnormally dangerous activity," as required to hold manufacturer's successor-in-interest strictly liable to lessee of building on site under New Jersey law; waste disposal posed high risk of harm to lessee, there was strong likelihood that degree of harm from site's contamination would be great, risks posed by disposal could not be eliminated by exercise of reasonable care, disposal was neither matter of common usage nor appropriate to place where it was carried on, and waste disposed of at site had no redeeming qualities.

#### 14. Negligence ⇨462

Lessee of building on site contaminated by chromium waste demonstrated that it was harmed by chromium manufacturer's abnormally dangerous activity of waste disposal, as required to hold manufacturer's successor-in-interest strictly liable to lessee under New Jersey law; lessee was required to demolish building and dispose of chromium-contaminated soil, and sustained legal fees, lost rents, and loss of ability to sell or develop property.

#### 15. Negligence ⇨554(1)

Plaintiff's "assumption of risk," as may obviate defendant's alleged negligence, requires that plaintiff knowingly and voluntarily encounter risk.

See publication Words and Phrases for other judicial constructions and definitions.

#### 16. Negligence ⇨554(1)

For plaintiff's assumption of risk to be "voluntary and knowing," as may obviate defendant's alleged negligence, plaintiff must be shown to understand and appreciate risk.

See publication Words and Phrases for other judicial constructions and definitions.

#### 17. Negligence ⇨554(1)

In determining whether plaintiff's assumption of risk was "voluntary and knowing," as may obviate defendant's alleged negligence, court must apply subjective test, examining what particular plaintiff in fact sees, knows, understands and appreciates.

#### 18. Negligence ⇨1314

Lessee of building on site contaminated by chromium waste did not assume risk of contamination when it acquired property, as required to absolve strict liability of chromium manufacturer's successor-in-interest under New Jersey law for waste disposal, since lessee did not knowingly and voluntarily encounter such risk; lessee did not have actual knowledge of chromium contamination at time of lease, did not learn of contamination until subsequent year, and then fully cooperated with state agency by fencing property, conducting environmental investigation, and taking steps to identify party actually responsible for contamination.

#### 19. Limitation of Actions ⇨55(6)

Abnormally dangerous activities attributable to manufacturer's successor-in-

interest, pertaining to on-site chromium waste contamination, constituted "continuing torts," and thus New Jersey statute of limitations pertaining to strict liability claim by lessee of building on site did not begin to accrue; presence of waste on lessee's property would have continued to cause harm until its removal or legal abatement. N.J.S.A. 2A:14-1.

#### 20. Federal Courts ⇨415

Awards of prejudgment interest are governed by law of forum state.

#### 21. Interest ⇨39(2.6)

Under New Jersey law, prejudgment interest begins to accrue from date on which damaged party loses use of its funds. N.J.R. 4:42-11.

#### 22. Environmental Law ⇨438

To prevail on cost recovery claim under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), plaintiff must show that: (1) property at issue is CERCLA "facility"; (2) there has been "release" of "hazardous substance"; (3) defendant falls within at least one category of "covered persons" defined in CERCLA; (4) costs sought by plaintiff constitute recoverable "costs of response"; and (5) plaintiff is not itself liable party under CERCLA. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a), 42 U.S.C.A. § 9607(a).

#### 23. Environmental Law ⇨445(1)

Successor-in-interest to chromium manufacturer was "covered person" under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as required to hold successor liable in CERCLA cost recovery action for activities pertaining to on-site chromium waste contamination; manufacturer owned disposal site during time that it was actively disposing of waste, arranged for waste dis-

posal, and transported waste to site through above-ground conveyor. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a), 42 U.S.C.A. § 9607(a).

#### 24. Environmental Law ⇨445(1)

Any party who owned facility at time hazardous substances were being "disposed" on property is strictly liable for response costs under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a)(2), 42 U.S.C.A. § 9607(a)(2).

#### 25. Environmental Law ⇨445(1)

Section of Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) imposing strict liability on "any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities" encompasses any person who has caused hazardous substance to be transported to disposal site. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(a)(4), 42 U.S.C.A. § 9607(a)(4).

#### 26. Environmental Law ⇨446

Lessee of building on site contaminated by chromium waste incurred recoverable costs of response under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as required to hold successor-in-interest to chromium manufacturer liable in CERCLA cost recovery action for activities attributable to contamination; lessee fenced site and took other security measures to protect unsuspecting members of public, and paid portion of cost for interim remedial measures. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, §§ 101(23, 25), 107(a), 42 U.S.C.A. §§ 9601(23, 25), 9607(a).

**27. Environmental Law** ⇨444, 445(1)

Lessee of building on site contaminated by chromium waste qualified for "third party" defense to liability under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and thus was entitled to bring cost recovery action against successor-in-interest to chromium manufacturer, since manufacturer was solely responsible for dumping of waste at site, and lessee exercised requisite due care with regard to waste by cooperating with state environmental agency in its attempts to compel successor to conduct investigation and remediation of property. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, § 107(b)(3), 42 U.S.C.A. § 9607(b)(3).

**28. Environmental Law** ⇨446

Lessee of building on site contaminated by chromium waste demonstrated that successor-in-interest to chromium manufacturer was liable in cost recovery action brought under Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and thus also was entitled to recover future response costs under CERCLA. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, §§ 107(a), 113(g)(2), 42 U.S.C.A. §§ 9607(a), 9613(g)(2).

**29. Environmental Law** ⇨445(1), 446

Lessee of building on site contaminated by chromium waste demonstrated that successor-in-interest to manufacturer was responsible for hazardous substances discharged at site, as required to hold successor liable for lessee's present and future cleanup and removal costs under New Jersey Spill Act; there was undisputed evidence that manufacturer had dumped approximately one million tons of chromium waste at site, and that lessee incurred recoverable costs by installing security

fencing around site, paying for disposal of chromium-contaminated soil, and paying portion of cost for interim remedial measures. N.J.S.A. 58:10-23.11.

**30. Environmental Law** ⇨444, 445(1)

Lessee of building on site contaminated by chromium waste qualified for "innocent purchaser" defense to liability under New Jersey Spill Act, and thus was entitled to bring action against successor-in-interest to chromium manufacturer for present and future cleanup and removal costs, since lessee did not know and had no reason to know that any hazardous substance had been discharged at property, did not discharge chromium waste, was not in any way responsible for waste, was not corporate successor to discharger, and fully cooperated with state environmental agency upon discovery of waste. N.J.S.A. 58:10-23.11.

**31. Environmental Law** ⇨445(1), 447

Lessee of building on site contaminated by chromium waste qualified for "innocent purchaser" defense to liability under New Jersey Spill Act (NJSA), and thus would not be liable for contribution to successor-in-interest of chromium manufacturer that discharged waste, stemming from claims brought under NJSA against successor by other parties; lessee did not discharge waste at issue, did not know and had no reason to know of discharge prior to acquiring site, and provided timely notice to state environmental agency upon learning of discharge. N.J.S.A. 58:10-23.11g.d.(5).

**32. Environmental Law** ⇨439

Successor-in-interest to chromium manufacturer failed to conduct cleanup of chromium contamination at leased property to mandatory New Jersey "residential" level, and thus breached contractual obligation to lessee of building on site under license agreement requiring successor to

fully and completely comply with all applicable state laws, rules and regulations in exercise of property remediation effort and cleanup of chromium contamination. N.J.S.A. 58:10B-12, 58:10B-13.

**33. Limitation of Actions** ⇨95(7)

Negligence claim brought by lessee of building on site contaminated by chromium waste against successor-in-interest to chromium manufacturer, stemming from successor's alleged failure to warn lessee of contamination, began to accrue at time lessee learned of contamination, more than fifteen years prior to date claim was filed, and thus was time-barred under New Jersey statute of limitations. N.J.S.A. 2A:14-1.

**34. Environmental Law** ⇨447

Successor-in-interest to chromium manufacturer who sought contribution from lessee of building on site contaminated by chromium waste failed to establish substantive cross-claims against lessee under Resource Conservation and Recovery Act (RCRA), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and New Jersey Spill Act, and thus could not maintain contribution cross-claim under New Jersey Joint Tortfeasors Contribution Law. Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 107(a), 42 U.S.C.A. § 9607(a); Solid Waste Disposal Act, § 7002(a)(1)(b), 42 U.S.C.A. § 6972(a)(1)(b); N.J.S.A. 2A:53A-3, 58:10-23.11.

**35. Contribution** ⇨9(5)

Contribution claimant under New Jersey Joint Tortfeasors Contribution Law must allege and prove that party against whom he makes claim is "joint tortfeasor" within meaning of statute. N.J.S.A. 2A:53A-3.

**36. Indemnity** ⇨61

Under New Jersey law, party is entitled to common law indemnification where its liability is entirely constructive, vicarious, and not based on any fault of its own.

**37. Indemnity** ⇨68

In action brought under Resource Conservation and Recovery Act (RCRA) by non-profit community organization, stemming from chromium contamination on former manufacturing site, any liability on part of lessee of building on site was entirely constructive, vicarious, and not based on any fault of its own, and thus lessee was entitled to indemnification under New Jersey law from organization's claims. Solid Waste Disposal Act, § 7002(a)(1)(b), 42 U.S.C.A. § 6972(a)(1)(b).

**38. Contribution** ⇨5(6.1)

Successor-in-interest to chromium manufacturer against whom action was brought, stemming from contamination on former manufacturing site, was sole tortfeasor in action, and thus lessee of building on site, also named as defendant in action, could not maintain contribution cross-claim against successor under New Jersey Joint Tortfeasors Contribution Law. N.J.S.A. 2A:53A-3.

**39. Injunction** ⇨9

When determining whether permanent injunction should issue, court must consider: (1) success on merits; (2) possibility of irreparable harm to movant if injunction is denied; (3) potential harm to non-moving party; and (4) public interest.

**40. Environmental Law** ⇨700

Non-profit community organization that brought action under Resource Conservation and Recovery Act (RCRA) against successor-in-interest to chromium manufacturer, stemming from contamination on former manufacturing site, suc-

ceeded on merits of claims against successor, demonstrated that irreparable harm to public and environment would ensue if injunction were not granted, and showed that economic harm to successor from requirement that it fund permanent remedy for site did not outweigh interests of public in prompt cleanup of site, and thus permanent injunctive relief against successor, mandating remediation and cleanup of site and reimbursement of previously incurred costs, would be properly granted. Solid Waste Disposal Act, § 7002(a), 42 U.S.C.A. § 6972(a).

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John Michael Agnello, Carella, Byrne, Bain, Gilfillan, Cecchi, Stewart & Olstein, Roseland, NJ, Christopher H. Marraro, William F. Hughes, Wallace, King, Marraro & Branson, PLLC, Washington, DC, for defendant/cross-claimant/cross-defendant/third-party plaintiff.

#### **AMENDED OPINION**

CAVANAUGH, District Judge.

This is an action brought by Plaintiffs, Interfaith Community Organization (ICO), Lawrence Baker, Martha Webb Herring, Martha Webb, Reverend Winston Clark and Margarita Navis against Defendants,

Honeywell International, Inc. (Honeywell), Roned Realty of Jersey City, Inc. (Roned) and W.R. Grace & Co., ECARG, Inc. and W.R. Grace, Ltd. (the Grace Defendants or Grace), seeking declaratory and injunctive relief mandating the cleanup of environmental contamination at Study Area No. 7 (the Site), located in Jersey City, New Jersey. There are also various cross claims by and between Defendants.

The parties tried this matter before me without the benefit of a jury on January 14, 15, 16, 21, 22, 23, 27, 28, 29, and 30, and February 3, 4, 5, 6, and 11 of 2003. This Court is asked to decide several issues. First, does the Site in question present an imminent and substantial endangerment to health or the environment under 42 U.S.C. 6972(a)(1)(B); if so, what steps must be taken to remediate this danger; and, perhaps most importantly, which party is responsible for the remediation.

I find that the Site in question does present an imminent and substantial endangerment to health or the environment; the appropriate remediation or cleanup entails the excavation, removal, and treatment of the hazardous waste and then restoration of the Site with clean fill; and the party responsible for the remediation and associated costs of same is Honeywell International, Inc.

These and other issues will be dealt with in greater detail below, as it is now incumbent upon me to make Findings of Fact and Conclusions of Law pursuant to Fed. R.Civ.P.52(a).

#### **FACTUAL FINDINGS REGARDING THE SITE (STUDY AREA 7)**

The Site, known by the New Jersey Department of Environmental Protection (NJDEP) as Study Area 7 of the Hudson County Chromium sites, consists of three contiguous properties: Site 115 (the Roosevelt Drive-In Site), Site 120 (the

Furniture Depot, formerly Trader Horn) and Site 157 (formerly the Clean Machine Car Wash). The Site is located on Route 440 in Jersey City, Hudson County, New Jersey, adjacent to the Hackensack River (Block 1290.A, Lots 14D, 14H and 14J). The three properties consist of approximately thirty-four acres with Site 115 making up approximately thirty-one of those acres. The area surrounding the Site consists of commercial and industrial facilities and a residential development. Presently, the Roosevelt Drive-in and Clean Machine Car Wash sites are owned by ECARG, Inc., and the Trader Horn Site is owned by Roned Realty of Jersey City, Inc.

The parties have stipulated that the Site is a "facility" as that term is defined in CERCLA § 101(9), 42 U.S.C. § 9601(9) and N.J.A.C. § 7:1E-1.6.

From approximately 1895 to 1954, Mutual Chemical Company of America owned and operated a chromate production facility located across Route 440 (formerly the Morris Canal) from the Site. Until its close in 1954, this facility extracted chromium from chromium ores to produce chromate chemicals. This process generated chromium bearing waste or chromium ore processing residue which will hereinafter be referred to as COPR. Mutual acquired the property across Route 440 from its Jersey City facility for the purpose of disposing large amounts of COPR. This disposal of COPR by Mutual through a pipeline created a land mass from what was tidal wetlands. During this processing time period, Mutual generated and transported approximately one million tons of chromium contaminated COPR to the Site. The COPR is approximately fifteen to twenty feet deep, covers the entire Site and still remains at the Site today.

Approximately twenty-five percent (25%) to thirty-three per cent (33%) of the

chromium in the COPR is in the form of highly toxic hexavalent chromium. As will be discussed in great detail below and as was testified to by numerous medical and scientific experts, hexavalent chromium is a known carcinogen, and depending on one's exposure, will cause a number of health related maladies, as well as environmental problems.

#### THE PARTIES

Interfaith is a not for profit corporation incorporated under the laws of the State of New Jersey. The remaining individual Plaintiffs, Baker, Herring, Webb, Clarke and Navis, are concerned citizens living near the Site.

Honeywell is incorporated under the laws of the State of Delaware. Honeywell is the corporate successor to Mutual Chemical Company of America and Allied Signal, Inc., Allied Chemical & Dye Corporation, Allied Chemical Corporation, Allied Corporation, and is therefore liable for any and all acts, omissions, debts and liabilities of Mutual and Allied related to or arising out of the chromium contamination at the Site. The Allied Corporation and Honeywell International, Inc. will be referred to herein as Honeywell.

Defendant Roned Realty of Jersey City, Inc. owns the portion of the Roosevelt Drive-In Site No. 120 and designated as Lot 14D in Tax Block 1290A, Jersey City, Hudson County, New Jersey. In August, 1960, Amy Joy Realty transferred Site 120 to Hestor Realty Corporation. After a series of real estate transfers over the years, Site 120 came to be owned by Roned Realty in November, 1977. Roned is a corporation formed under the laws of the State of New Jersey and is the present owner of the Trader Horn property, alternatively known as Site 120 which comprises approximately three acres of the Study Area 7 Site.

Mutual, a subsidiary of Allied Signal, which ultimately merged with and became Honeywell, owned and operated the chromium chemical production facility across from the Site from 1895 to 1954. In or about 1954, Allied Chemical & Dye Corporation (later Allied Signal) acquired Mutual and sold the Site to Amy Joy Realty Corporation for the construction of a drive-in movie theater. The drive-in was completed in 1955.

In 1965, Amy Joy Realty Corporation subdivided the Site and leased a portion to Goodrich Associates for the construction of a commercial building. Diana Stores Corporation later joined this lease. Diana Stores Corporation merged into Daylin, Inc. in 1969. Daylin in turn was acquired in 1979 by W.R. Grace & Co. and W.R. Grace, Ltd. W.R. Grace, Inc. is a corporation formed under the laws of the State of Connecticut and W.R. Grace, Ltd. is a direct subsidiary of W.R. Grace, Inc. with a registered office in London, England.

In 1981, Daylin acquired two parcels of land constituting the largest portion of Study Area 7 (the Site). At that time, W.R. Grace & Co. and W.R. Grace, Ltd. were the sole stockholders of Daylin. In 1982, Daylin changed its name to the Grace Retail Corporation. In November, 1986 the Channel Acquisition Company (Channel) acquired Grace Retail/Daylin and pursuant to a letter agreement, Grace Retail was to distribute some of its assets, including its portion of the Site, to ECARG, Inc., a New Jersey corporation and a subsidiary of W.R. Grace & Co. formed in 1975. ECARG presently holds formal title to the Roosevelt Drive-In and Clean Machine Car Wash Sites, Lots 14H and 14J, which comprise approximately thirty-one acres at the Site.

I find Honeywell is the successor to the company (Mutual) which actually deposited the contaminated material at the Site, and

Grace and Roned are the present owners of properties which comprise the Site.

#### **THE COMPLAINT AND CROSSCLAIMS**

Plaintiffs filed their Complaint on May 3, 1995. The Complaint was amended on August 2, 1995. In Count One of the Amended Complaint Plaintiffs allege Defendants violated § 7002(a)(1)(B) of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. § 6972(a)(1)(B), due to the fact that the chromium bearing waste at the Site may present an imminent and substantial endangerment to health or the environment. The remaining counts of Plaintiffs' Amended Complaint have been dismissed.

On or about May 17, 1996, Roned filed an Answer to the Amended Complaint along with various crossclaims. On January 3, 1997, Roned amended its crossclaims.

The Grace Defendants filed their Third Amended Crossclaims on October 4, 2000, seeking relief against Honeywell under RCRA, CERCLA, the New Jersey Spill Compensation and Control Act and Common Law and other declaratory relief. Honeywell has also asserted crossclaims against Roned and Grace seeking relief under RCRA, contribution under CERCLA, the New Jersey Spill Act and the New Jersey Joint Tortfeasors Contribution Law and other declaratory relief.

Shortly before trial, the Court was informed that Roned had settled its claims with Honeywell. As a result, Roned chose not to appear and took no part in the trial. Plaintiffs' claims against Roned however, remain viable.

While the form of Order pertaining to Honeywell's and Roned's settlement remains unsigned, the Court holds that the settlement has occurred and therefore will

treat Roned as a settling party as to its Co-Defendant Honeywell only.

Appropriate and timely pre-suit notice of claims under RCRA and the Clean Water Act were served and filed by the parties.

### THE TRIAL

The following is a listing of the witnesses who testified at trial, a brief summary of the subject matter of their testimony and a brief description of their backgrounds or qualifications. In addition, I include my impression as to the credibility of each witness and the weight to be afforded their testimony.

#### Plaintiffs' Witnesses:

*Benjamin I. Ross, Ph.D.* was offered by Plaintiffs and qualified as an expert in the area of groundwater and soil contamination. Dr. Ross holds a Bachelor of Science Degree in Physics from Harvard University and a Ph.D. in Physics from Massachusetts Institute of Technology. In addition, he has over twenty-five years of consulting experience in hydro-geology, ground water and soil contamination. Dr. Ross was a knowledgeable witness who testified in a coherent and forthright manner. I found him to be credible.

*Cheryl R. Montgomery, Ph.D.* was qualified as an expert in the areas of human health and ecological risk assessment. Dr. Montgomery holds a Bachelor of Science Degree and an Advanced Bachelor of Science Degree in Chemistry from McMaster University in Canada and a Ph.D. in Physical Organic Chemistry from the University of Guelph, Ontario, Canada. She is a principal and owner of Montgomery & Associates which provides strategic planning, oversight management, coordination and scientific technical support for projects involving hazardous waste, site risk assessments and pesticide product registration.

Most of her work involves risk assessment at hazardous waste sites.

This witness visited the Site and while she did not test or autopsy any animals, she did come to the conclusion that the amount of chromium at the Site greatly exceeded appropriate NJDEP Standards. She felt the ecosystem at the Site was at risk, which included organisms, plants, animals and birds, as well as people. She testified that the COPR or COPR soil could not support life or growth due to the high content of chromium. I found this witness to be very credible and knowledgeable. I therefore gave significant weight to her testimony as forthright and honest.

*Mr. William Sheehan* was offered as the Riverkeeper for the Hackensack River and the Executive Director of Hackensack Riverkeeper, Inc. Hackensack Riverkeeper, Inc. is a non-profit public interest organization whose mission is to protect, preserve and restore the natural living and recreational resources of the Hackensack River. This gentleman was very knowledgeable and had a great deal of experience with wildlife and the river itself. While I found Mr. Sheehan to be an honest and credible witness, I do not believe his testimony added much to the trial or did much to assist the Court in reaching a determination.

*Bruce Bell, Ph.D.* was qualified as an expert in the field of environmental engineering. Dr. Bell holds a Bachelor of Science and Masters Degree in Civil Engineering and a Ph.D. in Environmental Engineering from New York University. He is a licensed professional engineer in New York and New Jersey and a Diplomat of the American Academy of Environmental Engineers. He has also taught and published numerous articles in the field. Dr. Bell's testimony dealt mainly with the ongoing source of hexavalent chrome in the

sediment of the Hackensack River and its effects.

I found this witness to be knowledgeable and credible and therefore gave his testimony due consideration.

Plaintiff, *Reverend Winston Clarke* was offered as a fact witness. Rev. Clarke has resided at a condominium in the Society Hill Residential Development which is approximately one-quarter mile south of the Site. Presently, there are approximately 1,200 condominium units in the first phase of the Society Hill Residential Development and an additional 400 residential units are approved and under construction. The Hackensack River is only a few hundred feet from his home and borders on the Society Hill Residential Development where he has lived for ten years. Rev. Clarke was a credible witness.

Witnesses called by the Grace Defendants:

*Elizabeth Anderson, Ph.D.* was offered by Defendant Grace as an expert in the areas of human health and ecological risk assessments. Dr. Anderson holds a Bachelor of Science Degree in Chemistry from William & Mary College, a Masters Degree in Organic Chemistry from the University of Virginia and a Ph.D. in Organic Chemistry from American University. Dr. Anderson is the founder of the EPA's Carcinogen Assessment Group and oversaw the EPA's internal committee that wrote the first risk assessment and risk management guidelines for the EPA which were adopted in 1976. Dr. Anderson also had overall responsibility for the EPA's first health risk assessment on chromium which was published in or about 1984. Dr. Anderson has served on numerous peer review committees for the federal government and various state and international organizations, including the National Academy of Sciences, the U.S. Department of Agriculture, the Los Alamos National Lab-

oratory and the Committee to Advise the New Jersey DEP Commissioner. Dr. Anderson testified that there is a clear link between hexavalent chromium in humans and cancer as well as a variety of other medical problems which produce adverse effects on the DNA, create reproduction problems and cause respiratory and lung problems, as well as contact dermatitis. It was this witness's opinion that there can be no viable future use for this Site in its present condition. Any use would expose people to unacceptable health risks.

It is my assessment that Dr. Anderson was forthright and knowledgeable as well as credible and I therefore gave her testimony substantial weight.

*Peter M. Chapman, Ph.D.* was qualified as an expert in the fields of ecological risk assessments and sediment contamination. Dr. Chapman received a BSC in Marine Biology, a Masters Degree in Biological Oceanography and a Ph.D. in Benthic Ecology from the University of Victoria, British Columbia, Canada. He is employed by EVS Environmental Consultants as a Senior Scientist and has served as an Adjunct Professor at the University of Illinois. Dr. Chapman is presently retained by Environmental Canada (the Canadian equivalent of the EPA) to assist in determining the toxicity and characterization of all substances being used in commerce in Canada.

Dr. Chapman performed tests on samples at the Site and found chromium contamination of the sediment of the River. The tests revealed high toxicity which killed many of the amphipods. All stations tested closest to the Site showed toxicity and high mortality rates. He also felt certain samples taken from the swales located on the property and water coming off the swales were toxic to rainbow trout and other fish.

I found this witness to be knowledgeable and credible and therefore gave substantial weight to his testimony.

*Ronald L. Schmiermund, Ph.D.* was qualified as an expert in the areas of geo-chemistry and heaving (discussed in greater detail below). Dr. Schmiermund received his Bachelor of Science and Masters Degrees in Geo-Chemistry from Pennsylvania State University and a Ph.D. in Geo-Chemistry from the Colorado School of Mines. This witness discussed the heaving phenomena and opined that if the COPR remains on the property, heaving will continue to occur indefinitely. The Court found that Dr. Schmiermund was a knowledgeable and believable witness.

*Julio Valera, Ph.D.* was qualified as an expert in the field of geo-technical engineering and heaving. Dr. Valera received a Bachelor of Science Degree in Civil Engineering and a Masters Degree in Geo-Technical Engineering from the University of Notre Dame and a Ph.D. in Geo-Technical Engineering from the University of California at Berkeley. Dr. Valera is a licensed professional engineer in California and Colorado. He presently works for Valera Consultants performing geo-technical engineering and earthquake engineering consulting. Dr. Valera testified regarding the heaving phenomenon which is the movement and swelling of the ground upward and settling downward. Due to the instability of the ground caused by heaving, this witness is of the opinion that no buildings or structures can safely be built on this Site without remediation.

I was impressed with this witness and gave his testimony great weight.

*Donald V. Belsito, M.D.* qualified as an expert in the area of dermatology with specialized knowledge in the fields of allergic contact dermatitis and pathophysiology.

Dr. Belsito received a Bachelor of Science Degree in Biology and Chemistry from Georgetown University and a Medical Degree from Cornell Medical College. He also received a Masters Degree in Business Administration from the University of Canada. He completed a residency in Internal Medicine at Case Western Reserve University and a three-year dermatology residency and fellowship in Dermatologic Immunology at New York University. Dr. Belsito is Board Certified in Internal Medicine, Dermatology and Dermatologic Immunology. He is a professor at the University of Kansas Medical School and is presently on the staff at the University of Kansas Hospital and the Kansas VA Hospital. In addition, Dr. Belsito maintains a private medical practice in dermatology and sees approximately one hundred and fifty patients per week. He has treated approximately fifty patients for skin disorders as a result of exposure to chromium over the past eight years.

After reviewing the Site, it is Dr. Belsito's opinion that the Site is a present danger to residents, workers and trespassers due to the high chromium and pH levels present. As a result, those who come or come in contact with the Site would in all likelihood contract skin problems including dermatitis, chromium ulcers and possibly nasal septum perforations. The severity of the condition would depend upon the exposure.

I found Dr. Belsito to be both knowledgeable and credible and I therefore gave his testimony significant weight.

*Andrew O. Davis, Ph.D.* was qualified as an expert in the areas of geo-chemistry, hydro-geology and the fate and transport of contaminants in soil, groundwater and surface water. Dr. Davis holds a Bachelor of Science Degree in Aquatic Biology from Liverpool Polytechnic Institute, a Masters

Degree in Environmental Science from the University of Virginia and a Ph.D. in Geology from the University of Colorado. He is presently employed by Geomega, an environmental consulting company in Boulder, Colorado as Vice President and Director of Geo-chemistry. For over twenty years he has studied the fate and transport of organic and inorganic compounds, primarily at RCRA and CERCLA sites.

Through testing at the Site, he found high concentrations of hexavalent chromium at the Site exceeding New Jersey DEP standards. I found this witness to be both credible and believable and therefore gave his testimony great weight.

Grace called *Mr. James Wong* who is presently the Director of Global Due Diligence for Honeywell. Mr. Wong was offered as a fact witness employed by Honeywell as being most familiar with the Site on behalf of Honeywell. Mr. Wong received a Chemical Engineering Degree from Worcester Polytechnic Institute in 1974 and a Masters Degree in Environmental Engineering from Drexel University in 1981. He began working for Allied in 1977 and over the years received numerous promotions which included the positions of Project Engineer regarding the disposal of hazardous waste, Corporate Supervisor of Hazardous Waste Control which dealt with superfund sites for Allied, and Corporate Manager for Hazardous Waste Control and Manager/Site Remediation for Allied. This witness is most familiar with the health issues and heaving at the Site on behalf of Honeywell.

I found this witness to be less than candid. On occasion he would not answer questions directly and sometimes offered answers to questions that were not necessarily responsive to the question asked. Mr. Wong was definitely a partisan witness on behalf of Honeywell. His testimony was given diminished weight.

The Grace Defendants next called *Ms. Polly Newbold* as a fact witness. Ms. Newbold has been employed by Trillium, Inc., as a Quality Assessment Manager for approximately fifteen years. Trillium, Inc., is an environmental consulting company that specializes in environmental contamination. Ms. Newbold took environmental samples at the Site which were sent along to a laboratory for testing. Basically, Ms. Newbold was called for the purposes of creating a chain of possession between the samples taken and having them sent to the laboratory for testing. The Court was satisfied her testimony was credible.

The next witness called was *Mr. Harry Pierson*. Mr. Pierson holds a Bachelor of Science Degree from Temple University and a Law Degree from New York University. He is a member of the New York Bar and a Licensed Real Estate Broker in New York. In or about 1976, Mr. Pierson became Senior Vice President of Real Estate for W.R. Grace & Co. Retail Group. Since retiring from W.R. Grace in 1985, he has served as a consultant to W.R. Grace & Co. concerning operational issues, including the sale of its retail group in 1986. As a Senior Vice President of the Retail Group, Mr. Pierson was involved in strategic planning and was an ex officio member of the real estate committees of the various operating retail subsidiaries of W.R. Grace & Co.

Mr. Pierson was offered as a fact witness and testified regarding the planning and expansion of Grace properties. It was Mr. Pierson's testimony that he or Grace had no way of knowing the extent of the contamination at the Site since that did not fall within his area of expertise nor was it a problem that he would deal with as Senior Vice President of Real Estate.

Mr. Pierson is an elderly gentleman who I felt was a very credible and believable witness. There were occasions when he had a slight memory failure, but I attributed that more to his age and the passing years than anything else. Recognizing his many years of affiliation with Grace, I found him to be believable.

*Mr. Richard Kantor* was offered as an expert in the fields of real estate development and real estate financing. Mr. Kantor holds a Bachelor of Science Degree in Engineering from Purdue University. He is President of Miller Construction Company, a developer and general contractor in Jersey City, New Jersey for over thirty years. It was Mr. Kantor's testimony that a prudent builder would neither purchase nor invest in this Site without some form of remediation and that a prudent lender would not want to lend on a property such as this due to the cleanup uncertainties. Mr. Kantor was a credible witness.

Grace next called *Mr. Phillip Coop* who qualified as an expert on the standard and practice regarding pre-acquisition environmental site assessments. Mr. Coop holds a Bachelor of Arts Degree in Science and History from Harvard and is a Certified Hazardous Materials Manager. He is President of Ensaf, Inc., an environmental consulting firm which performs a full range of environmental consulting and engineering services including environmental site assessment, environmental investigation and environmental remediation and compliance. Mr. Coop has performed hundreds of site assessments throughout the United States and internationally for most types of property, including a great many for the retail department store industry. It is Mr. Coop's testimony that pre-acquisition assessments were not being done in 1981 due to the fact that there was a very low consciousness of environmental liability at that time. Accordingly, it is Mr.

Coop's view that neither Daylin nor Grace would have or should have done much in the way of due diligence or site assessment in 1981 due to the lack of standards.

I found Mr. Coop's testimony to be credible.

*Max Costa, Ph.D.* was qualified as an expert in the area of toxicology of chromium, including the carcinogenic and mutagenic effects of chromium. Dr. Costa received a Bachelor of Science Degree in Biology from Georgetown University and a Ph.D. in Pharmacology and Biochemistry from the University of Arizona. He is a Professor and Chairman of the Department of Environmental Medicine at New York University School of Medicine. He has been a Professor for approximately twenty-five years and associated with New York University since 1986. He has published numerous articles, many of which addressed the health effects of chromium which were peer reviewed. Dr. Costa has been an advisor to the EPA regarding the procedure for conducting metal risk assessments, and is currently working under several grants from the National Institute of Health to study chromium and nickel toxicology and carcinogenesis.

I found Dr. Costa to be a most believable witness. He explained in great detail how hexavalent chromium enters the cells of the body and causes damage to the body through adverse effects on the DNA protein. He was a credible and qualified witness and I therefore gave his opinion that hexavalent chromium is toxic to the environment and a carcinogen for people great weight.

*Kirk Brown, Ph.D.* was qualified as an expert in environmental remediation and heaving as it relates to remediation.

Dr. Brown received a Bachelor of Science Degree in Agronomy from Delaware Valley College, a Masters Degree of Sci-

ence in Agronomy/Physiology from Cornell University and a Ph.D. in Agronomy from the University of Nebraska. Dr. Brown is a Professor Emeritus at Texas A & M University where he has taught for thirty-one years at the graduate and undergraduate levels. His courses include the topics of soil physics and land disposal of waste materials including hazardous waste. In addition to his teaching position, Dr. Brown is employed by the SI Group in College Station, Texas where his projects include site remediation, site investigations and site permitting of hazardous waste sites. He has been involved in the remediation of several hundred contaminated sites, including a site contaminated with COPR in Jersey City.

Dr. Brown testified in great detail as to the various potential methods of remediation and his ultimate opinion that the only appropriate remediation for this Site, after studying numerous possible methods, would be to excavate the COPR, remove it, treat it, and bring in new clean fill.

I found Dr. Brown to be most believable and credible and I therefore afforded his testimony the greatest weight. Not only was he a knowledgeable and believable witness, but the subject of his testimony was perhaps the most significant in assisting the Court regarding the appropriate remediation at the Site. Dr. Brown was an excellent witness.

The next witness called by Grace was *Mr. Akos L. Nagy*. Mr. Nagy is employed by Grace as the Director of Real Estate since 1995. He is also the President of Gloucester New Community Company, a land development company owned by Grace and he is Vice President of ECARG. Mr. Nagy holds a Bachelor of Arts Degree in Mathematics from Fairleigh Dickinson University and a Masters Degree in Business Administration from Rutgers.

Mr. Nagy's responsibilities at Grace fall into three categories: (1) management of W.R. Grace & Co. lease exposure related to approximately two hundred excess leased properties, (2) evaluation and maximization of the value of W.R. Grace & Co.'s excess fee owned properties throughout the world, and (3) assisting W.R. Grace & Co.'s operating units with various real estate issues worldwide, including acquisitions and divestments.

This witness has no involvement with the remediation aspects of the Site in question, but was merely trying to determine a way to make the Site usable, valuable property.

It was Mr. Nagy's testimony that there were few if any brokers or realtors who actually represented an appropriate buyer for the property because ECARG insisted on an indemnity regarding the property and no one would agree to same due to the environmental problems that existed. I found Mr. Nagy to be a credible witness.

*Mr. Hugh McGuire* was qualified as a real estate appraisal expert. Mr. McGuire is a Licensed Real Estate Broker in the State of New Jersey and a Licensed General Certified Appraiser in the State of New Jersey and holds a Certified Tax Assessors Certificate from New Jersey. He is the former President of the Hudson County Assessors Association and the current Chairperson of the New Jersey Chapter of the Council of Real Estate. I found Mr. McGuire to be knowledgeable regarding the values of properties and the uses of properties in Hudson County and especially Jersey City. Mr. McGuire testified as to the fair market value of the Site today, as well as the fair market value in 1981 when the property was sold from Daylin to Grace. The Court was impressed with Mr. McGuire's testimony and therefore gave it significant weight.

The remaining witnesses were called by Defendant Honeywell.

*Mr. James Wong* was recalled as a fact witness. My comments and views regarding the credibility of this witness remain unchanged from that which I stated previously. Accordingly, I do not afford Mr. Wong's testimony great weight.

*Mr. Peter Deming* was qualified as an expert in the field of soil mechanics and foundation design. Mr. Deming holds a Bachelor of Science Degree in Civil Engineering and a Masters Degree in Civil Engineering specializing in geo-technical work from the University of Texas. He also holds a Professional Engineering License in the State of New York.

Mr. Deming offered testimony in support of his view that large commercial structures could be built at the Site without excavating the Site. He acknowledged that the type of foundation that would be needed to support such a structure is somewhat experimental and that neither high-rise residential structures (beyond five floors) nor other multiple residential structures would be feasible.

I found Mr. Deming's testimony to be credible and I found Mr. Deming to be a knowledgeable witness in his field. I believe his testimony supported the theory that due to the heaving phenomenon of the COPR, construction on the Site is limited to large commercial structures rather than residential.

The next witness called was *Mr. Frank Faranca*. Mr. Faranca has worked for the NJDEP as a Case Manager for the Site since 1988. He is a Geologist and a Technical Coordinator responsible for managing hundreds of contaminated sites, including Area No. 7. Mr. Faranca is responsible for carrying out the provisions of the Administrative Consent Order executed by Honeywell and the NJDEP in June of

1993, which covers, among other things, the remediation of the Site.

I found Mr. Faranca to be a very believable witness. This witness testified at great length about the amount of time and effort that has been spent in attempting to resolve the problems at the Site and the lack of cooperation by Honeywell. In response to questions posed during cross examination, this witness clearly testified that there has been much foot-dragging and non-cooperation by Honeywell and that the Site is not much closer to final remediation now than it was when the problems were first brought to Honeywell's attention twenty years ago. I found Mr. Faranca to be a very credible witness.

*Mr. Peter Blanchard* was offered as an expert in the field of property redevelopment and Brownfield redevelopment. Mr. Blanchard is a real estate broker and principal of the Garribaldi Group, well respected commercial real estate brokers and developers. It is Mr. Blanchard's view that under the present zoning scheme and due to his site evaluation, the highest and best use for the property in question would be retail commercial rather than residential.

Mr. Blanchard was a knowledgeable and credible witness and his testimony was given appropriate weight.

*Mr. Fred C. Hart* was offered as an environmental due diligence expert.

Mr. Hart obtained a Bachelor of Science Degree in Civil Engineering from Cornell University, a Masters Degree in Civil Engineering from Stanford University and a Masters Degree in Business Administration from the University of Connecticut. He is a Professional Engineer licensed in the State of New York. Mr. Hart testified that in his opinion, Daylin knew or should have known at the time it purchased the property that there existed environmental problems with the Site that would require

remediation. During direct examination, the witness was shown various documents which he believed Daylin and Grace should have been aware of. These documents support his view that the purchaser would be aware of the environmental problems.

I was not impressed with this witness since I believe the evidence does not necessarily support his view that the documents he relied upon were ever seen by, or brought to the attention of representatives of Daylin or Grace. Accordingly, I afforded this witness's testimony little weight.

*Mr. Anthony J. Wells* was qualified as an expert real estate appraiser.

I found this expert to be well qualified, knowledgeable and believable. He was offered to rebut the testimony of Mr. McGuire who I also found credible. Accordingly, I am faced with two credible witnesses with differences of opinion. It should be pointed out further that Mr. Wells did conduct a commercial analysis of the property and Mr. McGuire did not.

*Mr. Richard Ninesteel* was offered as a fact witness. He received a Bachelor of Science Degree in Environmental Engineering from Pennsylvania State University and he is a Licensed Professional Engineer in Pennsylvania and Ohio. Mr. Ninesteel became the Project Manager for the remedial investigation of the Honeywell chromium sites in Hudson County, New Jersey in late 1996. Mr. Ninesteel discussed the various wells that were drilled on the Site and the taking of samples from these wells. While the Court finds Mr. Ninesteel to be a credible witness, he did not really offer much at trial.

Honeywell next offered *Eric Rifkin, Ph.D.* as an expert in the fields of human health and ecological risk assessment. Dr. Rifkin holds a Bachelor of Arts Degree in Biological Sciences from Rutgers Universi-

ty and a Master of Science and Ph.D. in Zoology from the University of Hawaii. He is presently President of Rifkin & Associates, an environmental consulting firm focusing on human health and ecological risk assessment. Rifkin & Associates have been serving as a consultant to Honeywell for approximately eleven years during which time Honeywell has been the source of 40% or more of Rifkin's annual income. Furthermore, Honeywell has been the primary client of Dr. Rifkin and Rifkin Associates for the last seven years. The majority of Dr. Rifkin's income has been the result of his relationship with Honeywell. As part of his work with Honeywell, Dr. Rifkin has advocated Honeywell's position to the NJDEP, including the preparation of comment letters and commenting on drafts of comment letters and also advised Honeywell on policy positions relating to risk assessments. Dr. Rifkin has represented Honeywell in meetings with the NJDEP regarding the chromium contamination at the Site.

The Court is troubled by Dr. Rifkin's testimony in that he alone seems to be at odds with most or all of the other experts who have found that the Site is contaminated to such a degree that it poses a risk to health and the environment. Dr. Rifkin attempts to downplay or minimize the risks and while he acknowledges that some remediation is necessary, he believes there is no significant risk at the present time.

I reject Dr. Rifkin's testimony and I find that he has little or no credibility. It is evident that Dr. Rifkin owes his livelihood to his ongoing relationship with Honeywell and I therefore believe his testimony is unfairly biased in favor of Honeywell.

The final witness offered was *Gary R. Walter, Ph.D.* who qualified as an expert in the area of fate and transport of ground water contamination. Dr. Walter holds a Bachelor of Science Degree from the Uni-

versity of Kansas and a Masters Degree in Geology from the University of Missouri at Columbia. He also holds a Ph.D. in Hydro-Geology from the University of Arizona. He is a Licensed Geologist in Arizona, California, Wyoming and Washington with an expertise in groundwater resources. He is a principal of the Southwest Institute. Basically, this witness testified regarding technical formulas he used to determine water flow and concentrations of hexavalent chromium from the Site. He also discussed the viability of a permeable reactive barrier wall as a form of remediation. While I felt Dr. Walter is a knowledgeable and credible witness, I do not believe his testimony assisted the Court when compared to testimony of others, more specifically Dr. Brown.

No further witnesses were called.

#### **FINDINGS OF FACT**

As stated in the introduction, I conducted a non-jury trial during January and February of this year (2003). As a result of the trial, the numerous documents entered into evidence and the many witnesses presented, I make the following Findings of Fact and Conclusions of Law.

There are a number of facts that are not in dispute and I therefore will not deal with them any more than is necessary. There is no question but that Mutual, formerly one of the largest chromium producing companies in the United States and perhaps the world, deposited vast amounts of COPR with significant levels of hexavalent chromium at the Site during the first half of the twentieth century. There is also ample evidence that Mutual had knowledge of the health and environmental risks associated with hexavalent chromium as early as the 1920's. During the 20's, 30's and 40's, various articles, memos and studies were circulated among and between the officers and managers of Mutu-

al. These documents, which included records now maintained by Honeywell, make it clear that Mutual was aware of the adverse health effects posed by hexavalent chromium.

A significant issue to be decided is which party or parties is or are responsible for the Site remediation and the significant costs that will be incurred. Plaintiffs take the position that each of the Defendants is liable and therefore each should be responsible to some degree. It is Honeywell's position that while they acknowledge that they are liable, as successor to Mutual, Honeywell believes Grace or its predecessor should also be liable for remediation since Grace knew or should have known of the significant contamination problems at the Site when it was purchased, and by their actions thereafter as owners.

Grace denies knowledge of the contamination prior to purchasing the Site; claims to be an innocent purchaser who learned of the contamination subsequent to the purchase and claims to have fully cooperated with NJDEP since being notified of the contamination at the Site. It is their position that while they did indeed cooperate with the authorities and clean up certain abandoned drums and other debris placed at the Site by parties unknown, those cleanup efforts had nothing to do with the chromium contamination. Grace argues that the only responsible party is Honeywell.

#### **HONEYWELL IS LIABLE UNDER RCRA**

Under RCRA, liability can be established by meeting the requirements of § 7002(a)(1)(b). Liability requires a showing that the Defendant (1) has contributed to or is contributing to (2) the past or present handling, storage, treatment, transportation, or disposal of (3) any solid or hazardous waste that (4) may present

an imminent and substantial endangerment to health or the environment.

Honeywell admits that its corporate predecessor, Mutual, transported and deposited hundreds of thousands of tons of chromium waste at the Site. See Final Pretrial Order, Stip. 45-77. This Court has found that Honeywell admits that it is the corporate successor to Mutual and that it is liable for any and all acts, omissions, debts and liabilities of Mutual relating to or arising out of the chromium contamination at the Site. I am satisfied that the chromium contamination of both the soil and groundwater exceeds the State standards and I reject Honeywell's arguments contrary thereto.

The Defendants admit that the chromium waste at the Site is both a "solid waste" and a "hazardous waste" under RCRA. See Honeywell's Second Amended Crossclaims, Paragraph no. 69, Pl.Ex. 1176,<sup>1</sup> Paragraph 4. Based on these facts and admissions, the Court finds that the chromium at the Site is a solid and a hazardous waste under RCRA.

The Court recognizes that in order to show that a solid or hazardous waste may present an imminent and substantial endangerment, it must be demonstrated that (1) there is a potential population at risk; (2) the contaminant is present at levels above that considered acceptable by the State; and (3) there is a pathway for current and/or future exposure. NJDEP has determined that (NJDEP December 1988 Directive, Pl.Ex. 409, p. 4 and Attach. 1):

[T]he uncontrolled discharges of hazardous substances from the chromate chemical production waste at the Sites listed in Attachment One are within an area of high population density in the State of New Jersey and that the risk of human exposure to chromate chemical

production waste at the Sites listed in Attachment One is ongoing. Chromium compounds contained in the chromate chemical production waste are toxic to humans and include demonstrated human carcinogens. *These conditions create a substantial risk of imminent damage to public health and safety and imminent and severe damage to the environment.* [emphasis added]

Attachment 1 lists the Site. The Court gives substantial weight to the finding of NJDEP that the chromium contamination at this Site presents an imminent and substantial endangerment.

The Court finds that chromium contamination is present at the Site in several media at levels far in excess of the standards NJDEP set for the Site.

On April 28, 1983, NJDEP notified Honeywell that the Site was contaminated with chromium in excess of levels deemed acceptable by the State. The Court gives substantial weight to the finding of NJDEP that chromium is present at levels that exceed those deemed acceptable by the State and finds that chromium contamination of soil at the Site greatly exceeds all of New Jersey's Soil Clean-Up Criteria which NJDEP has determined apply at the Site.

New Jersey law provides that residential use soil clean-up standards are applicable unless the property owner consents to a deed restriction on the property, in which event the non-residential clean-up standard is applicable. The Grace property owners have informed Honeywell and NJDEP that they do not consent to a deed restriction on the property. The Roned property owners also initially refused to consent to a deed restriction. However, in a settlement reached with Honeywell on December 16, 2002, the Roned property

1. "Pl.Ex." refers to Plaintiffs' Trial Exhibits in

evidence.

owners changed their original position and now agree to a deed restriction on the portion of the property they own.

New Jersey's residential use soil clean-up standard for hexavalent chromium based on risk of cancer from inhalation is 270 ppm. This standard was set so as to ensure that the risk of cancer is no greater than 1 in 1 million as required by N.J.S.A. 58:10B-12(d).

New Jersey's residential use soil clean-up standard for hexavalent chromium based on health risk from ingestion is 240 ppm.

New Jersey's non-residential use soil clean-up standard for hexavalent chromium based on risk of cancer from inhalation is 20 ppm. This standard was set so as to ensure that the risk of cancer is no greater than 1 in 1 million as required by N.J.S.A. 58:10B-12(d).

New Jersey's non-residential use soil clean-up standard for hexavalent chromium based on human health risk from ingestion is 6,100 ppm.

Honeywell admits that NJDEP has informed it that 240 ppm hexavalent chromium is the applicable clean-up standard for the soil at the Site.

This Court finds that soil contamination at the Site far exceeds all applicable soil clean-up standards: New Jersey's residential standard based on the risk of cancer from inhalation of 270 ppm; the residential standard for ingestion of 240 ppm; the non-residential standard based on the risk of cancer from inhalation of 20 ppm; and the non-residential standard for ingestion of 6,100 ppm. In addition, evidence was produced and I so find chromium contamination of groundwater, onsite surface water, and sediments near the Site in the Hackensack River all exceed the State Standards and therefore present an imminent and substantial endangerment to

health and the environment. Accordingly, based upon the foregoing, I find that Honeywell is liable under RCRA. (See Conclusions of Law, *infra* ).

#### CHROMIUM TOXICITY

I find that the waste contamination at the Site presents an imminent and substantial endangerment to human health and the environment such that the remedy must be excavation, removal and treatment and I find that Honeywell is the responsible party and must bear the costs for remediation. I will now deal with these issues, other claims by and between the parties and the remedies to be imposed in greater detail.

There is no question but that Mutual generated and deposited approximately one million tons of COPR at the Site as of December of 1954 when Mutual ceased operations at its facilities. The COPR contains hexavalent chromium and other chromium compounds which are hazardous substances as defined by RCRA. When deposited at the Site, the COPR contained between 3% and 7% total chromium. Approximately 25% to 33% of the chromium in the COPR is in the form of highly toxic hexavalent chromium. The COPR is also highly alkaline having a pH of as high as 12. The high pH of the COPR causes the chromium to remain in its highly toxic hexavalent form rather than degrade to its less toxic trivalent form as would naturally occur in the environment. Due to the high pH of the COPR, the hexavalent chromium in the COPR is highly soluble in water and therefore freely leaches into the surface water and groundwater at the Site. In addition to chromium, the COPR contains toxic metals such as aluminum, antimony, barium, beryllium, cadmium, calcium, cobalt, copper, iron, lead, magnesium, manganese, nickel, potassium, silver, silicon, vanadium, zinc and titanium. The COPR

at the Site is between fifteen and twenty feet deep.

As has been testified to by a number of the experts, hexavalent chromium has been classified by the EPA's Carcinogen Assessment Group as a Grade A Carcinogen through the inhalation exposure route and the EPA has ranked the potency of hexavalent chromium in the first quartile of human carcinogens. EPA has determined that hexavalent chromium is a more potent human carcinogen than arsenic, benzene and PCB's. NJDEP has also determined that hexavalent chromium is a known human carcinogen.

Both hexavalent and trivalent chromium have been found to cross the placental border so that birth defects, such as cleft pallet, skeletal defects and neural tube defects have been attributed to both hexavalent and trivalent chromium in laboratory animals. Pregnant women exposed to chromium have been found to have three times as many clinical and delivery complications. Chromium exposure has been shown to cause mutation of mammalian cells, including chromosomal aberrations.

Hexavalent chromium can enter the human cell and cause DNA protein cross links which in turn cause cell abnormality and genetic mutation. Dr. Costa sampled chromium contaminated surface water from the Site and determined that the water at the Site may cause cell abnormality and genetic mutation. Humans may be exposed to hexavalent chromium through dermal contact, inhalation and ingestion. Such contact and exposure produces numerous and serious health problems as testified to by Drs. Anderson, Costa and Belsito.

Chromium is toxic to virtually every environmental receptor, with acute toxicity predominately from hexavalent chromium. The toxic effects of chromium in ecological receptors include reduced growth, reduced

survival, reduced reproductive capabilities and birth defects. Total chromium has been adversely shown to impact benthic organisms. Chronic toxicity to saltwater vertebrates and invertebrates has been observed when the level of hexavalent chromium in the water ranges between 13 and 132 U<sub>g</sub>/L. Chromium can also be acutely toxic to marine plants and cause reduced growth. Predators can receive chromium through the direct consumption of food items which contain chromium.

Based on these facts, the Court finds that exposure to chromium presents serious risks to human health and the environment. Testing at the site confirms that chromium is present and at significant levels above State standards.

#### **SITE HISTORY AND OWNERSHIP SINCE 1954**

The Site in question became the subject of numerous sales, transfers, mergers and acquisitions since Mutual ceased its operations in 1954. I will now review in some detail the aforementioned activity pertaining to the Site.

Mutual sold the Site to Amy Joy Realty Company (Amy Joy) in December of 1954. Honeywell acknowledges through the testimony of its witness Mr. Wong, that although Wong has reviewed hundreds of Mutual documents during his twenty-year involvement with the Site, he has never located or seen a Mutual or Allied document notifying any party that the Site contained approximately one million tons of COPR.

In July of 1965, Amy Joy as lessor, entered into a lease with Goodrich Associates (Goodrich) as lessee, pertaining to the 14.7-acre tract of vacant land which comprises the easterly portion, Lot 14H of the ECARG property (ground lease). This ground lease was for a period of thirty-one years and permitted extensions in incre-

ments of at lease ten years up to a total of ninety-nine years. The ground lease provided that the leased premises could be used for "commercial, mercantile, or services (bowling) enterprises or for the operation of residential or office properties . . ." Grace 128,<sup>2</sup> p. 4. The ground lease provided further that Goodrich was required to construct a building of not less than 100,000 square feet on the leased premises referred to as the "Goodrich (Valley Fair) Building" and that Goodrich would own fee title to the building.

On July 23, 1965, Goodrich, as lessor, entered into a lease with Diana Stores Corporation, as lessee, under the terms of which Goodrich was to construct a building (the Goodrich Building) for Diana Stores' use on the 14.7-acre tract Goodrich leased simultaneously from Amy Joy under the terms of the ground lease (the operating lease). The operating lease was for a period of thirty-one years and permitted two extension periods of ten years each. The operating lease provided that after the first eight years, the leased premises could be used for commercial or residential purposes. On July 23, 1965, Goodrich, as grantor, entered into an option agreement with Diana Stores, as grantee, whereby Goodrich gave Diana Stores the option to purchase a 50% interest in Goodrich's estate as lessee under the ground lease and its estate as lessor under the operating lease. Pursuant to the operating lease, Goodrich constructed a 180,800 square feet retail building on Lot 14H. On November 4, 1966, the Jersey City Superintendent of Buildings issued a Certificate of Occupancy to Goodrich for the Goodrich Building.

During Goodrich's construction of the retail building on Lot 14H, the New Jersey Department of Health conducted an occupational health study at the construction site and determined that several of the

workers had contact dermatitis. Soil, water and air samples taken by the Department of Health on July 29, 1966 contained chromium.

No evidence was presented at trial that the health study mentioned above was ever provided to or the results shared with Goodrich, Diana or Daylin.

After construction was completed, the Goodrich Building was occupied by a Great Eastern Discount Store that subleased the building from Diana. In March of 1967, Goodrich and Diana entered into a joint venture agreement whereby Diana acquired an undivided one-half interest in both the Amy Joy/Goodrich ground lease and the Diana/Goodrich operating lease. By this joint venture agreement, Diana acquired an undivided one-half interest in the ownership of the Goodrich Building.

In 1969, Daylin, Inc. acquired Diana by merger. Daylin and Goodrich eventually became adversaries. In 1973, Daylin sued Goodrich in New Jersey Superior Court alleging faulty construction of the Goodrich Building. A settlement resulted whereby Goodrich agreed to make repairs to the Goodrich Building. Daylin agreed to advance Goodrich one-half of the repair costs and Goodrich agreed to reimburse Daylin the monies it advanced at a later time.

In March, 1974, during the course of Goodrich's building repairs, the faulty building construction was described to Morris Rayburn, a Daylin representative, by Moe, a consulting engineer. Moe's observations included column distortions, missing bolts from connections that had never been installed, concrete strength well below established standards, rotting under floor conduits, pile caps that had not been imbedded, out of plumb walls and no

2. "Grace" followed by a number refers to

Grace Trial Exhibits in evidence.

binding of roof to deck through the entire system.

In May, 1974, Goodrich sued Daylin claiming that Goodrich had completed the building repairs as agreed to in the April, 1973 settlement agreement, but that Daylin failed to pay Goodrich all the advances owed for the building repairs as called for in the settlement.

In August, 1975, Daylin sublet the Goodrich Building to Valley Fair Jersey City, Inc. for operation of a discount food market and department store. The "net—net lease" was for a term of fifteen years at a rent of \$280,000 per year. Extension periods of ten and seven years at an annual rent of \$302,400 and \$323,568 respectively were permitted.

The Goodrich (Valley Fair) Building was occupied as a discount store until sometime after 1979. Between January and March 1979, Mr. Pierson, Vice President of the retail group of Grace, visited Lot 14H and the Goodrich (Valley Fair) Building. At the time of Pierson's visit, the Goodrich Building was being operated as a discount store.

A videotape (Grace 1021), shown during the trial clearly depicted the destruction of the Goodrich (Valley Fair) Building caused by a phenomenon called heaving.<sup>3</sup> Based on the foregoing, the Court finds that the Goodrich (Valley Fair) Building suffered from structural problems as early as the 1970's. These problems continued at the building through the 70's and 80's and ultimately resulted in the need to demolish the Goodrich (Valley Fair) Building in the mid 1990's. I specifically find that the structural problems experienced at the Goodrich (Valley Fair) Building were caused by heaving.

In January, 1979, W.R. Grace & Co. initiated a hostile takeover of Daylin. Pri-

or to Grace acquiring the stock of Daylin, Grace had assembled a substantial group of retail businesses including Channel Home Centers, Orchard Hardware Supply, PayLess Cashways, Ole's, and Shepler Western Wear Stores. On March 20, 1979, Grace acquired the stock of Daylin. In connection with the acquisition, Grace caused Grace Retail Corporation (GRC) to be incorporated. Grace assigned the stock of Daylin to GRC on March 20, 1979. GRC was merged into Daylin on March 21, 1979, with Daylin being the surviving corporation.

Daylin acquired Lots 14H and 14J without knowledge of the contamination.

As testified to by Mr. Pierson, in or about the beginning of 1980, Daylin, with the approval of its majority shareholder Grace, developed a plan under which Daylin would maximize the value of its "excess properties". On or about February 26, 1981, a detailed memorandum which contained a comprehensive analysis of the status of Daylin's excess properties along with a plan for the disposition of the excess properties was submitted to Daylin's Board of Directors. The memorandum demonstrated that with respect to the Jersey City excess property, Lot 14H, the economics of Daylin's operating lease and the ground lease made it more advantageous for Daylin to purchase Lot 14H from General Cinema (successor by merger to Amy Joy), than to continue in the lessor-lessee relationship. In fact, Daylin was obligated to pay in excess of \$600,000 annually as a result of its operating lease and ground lease obligations. Thus, Daylin was interested in acquiring fee title to Lot 14H, the property occupied by the Goodrich (Valley Fair) Building. However, General Cinema, the property owner, would not sell Lot 14H without selling the

3. Heaving will be explained later in this opin-

ion.

adjacent property on which the drive-in movie theater was located, Lot 14J. As a result the plan for the Jersey City excess property called for the acquisition of both Lots 14H and 14J.

The transaction whereby Daylin would acquire Lots 14H and 14J involved a third party, Louis Feil. Feil's involvement in the acquisition had certain advantages. First, Feil was interested in purchasing another of Daylin's excess properties located in Elmont, New York. However, the tenant at Elmont, Times Square Stores, had a right of first refusal in its lease. In order to overcome the right of first refusal, it was necessary for Feil to offer a consideration that the Times Square Stores could not match. Feil's purchase of Lot 14H and the transfer of that property to Daylin as part of the consideration for the Elmont property created an offer which would be impossible for Times Square Stores to match. Second, Feil had a previous relationship with General Cinema and therefore it was believed that he might be in a better position to negotiate the price to be paid for Lots 14H and 14J. Third, there was a tax advantage to using Lot 14H as part of the consideration for Feil's purchase of the Elmont property.

Prior to Daylin's acquisition of Lots 14H and 14J, Pierson visited the property for a second time. During the second visit, Pierson was reassuring himself as to the position of the Goodrich (Valley Fair) Building on Lot 14H with respect to the adjacent property which Daylin was to acquire. Pierson wanted to make sure that the future development of Lot 14J would tie into the existing building and layout of Lot 14H. During this visit, Pierson went to the back of the Goodrich (Valley Fair) Building and decided it would be possible to expand the development of the property onto Lot 14J if the Goodrich (Valley Fair) Building was to remain standing, and that

it would also be possible to commercially develop the two lots together if the Goodrich (Valley Fair) Building was removed.

During this second visit, Pierson saw no abandoned drums, abandoned trucks, or yellow water on the property. He saw the movie screen from a distance, the projection booth, and another small building behind the Goodrich (Valley Fair) Building. Pierson testified that had he seen any yellow colored water or streams or drums when he visited Lots 14H and 14J prior to Daylin's acquisition, he would have reported it to Daylin's management.

Pierson and Daylin were aware of the construction problems with the Goodrich (Valley Fair) Building prior to Daylin's acquisition of Lots 14H and 14J. However, prior to acquiring those lots, Pierson did not know there was approximately one million tons of chromium waste on these properties. The faulty construction of the Goodrich (Valley Fair) Building was specifically noted in the February 26, 1981, memorandum to the Daylin Board of Directors. The lawsuit instituted by Daylin regarding the faulty construction was likewise referenced in the February 26, 1981, memorandum, as was the settlement of the construction defect lawsuit. The settlement agreement between Daylin and Goodrich clearly sets forth those parties' recognition of the faulty construction.

Neither Pierson nor anyone at W.R. Grace & Co. was aware that Lots 14H and 14J had environmental problems pertaining to chromium prior to Daylin's acquisition of those properties in 1981.

On May 29, 1981, Louis Feil acquired the ECARG property from General Cinema. On June 1, 1981, Feil transferred the ECARG property to Daylin. Daylin paid \$1.2 million for Lots 14H and 14J in 1981 which amount represented the fair market value of those properties.

