

Nicholas A. Patz

EDUCATION

Bachelor of Arts, Geography, California State University, Fullerton
Graduate Studies, Geography, Arizona State University

EXPERIENCE

30 years management, 35 years total

ACTIVE REGISTRATIONS | CERTIFICATIONS | TRAINING

Nevada Certified Environmental Manager #01274
Brownfields Project Management, CCLR
40-hour OSHA Health & Safety Training / 8-hour updates
Certified Hazardous Materials Manager, University of California, Irvine



PROFESSIONAL SUMMARY

Nick Patz has over 35 years of experience conducting and managing environmental assessment and remediation projects, and waste management initiatives and projects at large and small environmental consulting firms. He has a wide range of experience within the environmental industry from being a pioneer in the environmental due diligence field of the late 1980s to recently promoting waste to energy as an important control on man's impact on climate change. Mr. Patz was the first non-registered project manager at a large environmental consulting firm. in the late 1980s before a change in their business model forced him to start a new company in late 1992. Mr. Patz then became president of Ceres Associates, which quickly grew to 25 employees in the United States. Ceres Associates primarily serviced private clients within the United States prior to opening an initiative to change the way emerging nations handled waste management issues.

Mr. Patz has instituted concept integrated waste management programs to establish zero-waste initiatives for local governments, hotel chains, and industrial developments using a variety of available options from the simple, such as composting, to the more complex such as innovative waste to energy systems. Mr. Patz has given presentations and speeches for technical as well as public audiences in the United States, South America, and the Middle East on topics ranging from explanations of environmental law to how pyrolytic gasification could be a key cog in helping solve the global climate change problems. He has been a long-term advocate of responsible environmental stewardship.

As president of Ceres Associates Mr. Patz supervised a company directive (between 2002 and 2010) to provide state-of-the-technology landfills and recycling programs in the Middle East, that significantly enhanced local environments in the United Arab Emirates and Saudi Arabia while reducing carbon and methane emissions to the atmosphere. He was responsible for management of the sighting, design, and

construction of the first landfill in the GCC with environmental controls. The waste management programs included, environmental education, codifying environmental regulation, design and construction of collection systems, purchasing new low-emission vehicles, design and construction of materials recycling facilities and landfills. Starting with having no recycling program, the first waste management program in Ras Al Khaimah, UAE achieved a 60% recycling rate within 18 months of initiation and was over 80% within the first three years. Mr. Patz sold Ceres Associates Gulf and closed Ceres Associates (United States) to concentrate on providing superior service to U.S. government agencies, which has proved to be a very difficult process.

Mr. Patz has been consulting with Balboa Pacific Corporation as Vice President of Project Development. Balboa Pacific has a proprietary system that converts waste to electricity through pyrolytic gasification in small mobile and modular systems that consume 50 to 150 tons of waste per day. In the capacity of Vice President, Mr. Patz has had the opportunity to propose on potential projects at locations world-wide, including North and South America, Europe, Asia, Africa, and the Middle East. He develops the entire project concept, the project feasibility study, design of the plant, accepting waste and preparing refuse derived fuel (RDF) through production of electricity and connection to the grid. Mr. Patz has a very strong knowledge of the pyrolytic gasification processes, but more specifically a keen awareness of how to put together projects that can consume waste in a manner that is environmentally sound, as well as be financially profitable.

In 2014, as Vice President of Balboa Pacific, Mr. Patz was invited to speak at the Escuela Superior Politecnica de Chimborazo (ESPOCH) in Riobamba, Ecuador, where he was granted an honorary degree. The presentation was for the school's engineering students as well as local-area politicians, with an audience of over 800. The event was publicized as the first presentation on waste-to-energy technology ever given in South America, and started a movement to better waste management practices in the country. The event was followed up with numerous meetings with mayors and governors in Ecuador that were met with enthusiastic approval. However, the steady decline of oil prices, and the 7.8 magnitude earthquake two years later have depleted government coffers in Ecuador and thus the amount of money available for "non-fundamental" initiatives.

Mr. Patz has a broad range of professional experience in the environmental field. While serving in the capacity of program manager, Mr. Patz has provided management for many large projects that have included numerous professional disciplines such as architecture, civil, chemical, mechanical, and environmental engineering, waste management, environmental science, geology, hydrogeology, health science, chemistry, biology, and civil, chemical, mechanical, and geotechnical engineering professionals.

He conducted geotechnical studies for mass grading of large complex residential and commercial developments, and managed geologic mapping at a nuclear generating station. Mr. Patz has participated in terrain analyses and hydrogeological studies for the U.S. Department of Defense. He has conducted and managed potential responsible party searches and thousands of Phase I, II, and III Environmental Site Assessments (ESAs). He was a member of ASTM E1527-93 committee that established the first industry-recognized guidelines for Phase I ESAs. Mr. Patz has managed and participated in groundwater assessments for potability, chemical characterization, remediation, natural attenuation, and solid waste assessment tests. He has been engaged in risk assessments, remedial investigations and feasibility studies, remedial action, environmental impact studies and landfill sighting and monitoring studies and construction.

Converting waste to energy is a passion. The process solves several societal problems by eliminating the health hazards associated with waste accumulation, eliminating methane production (which is a very significant greenhouse gas) from landfilling, eliminating the need for landfills, and providing clean energy from a renewable resource. While these are just a few of the positive social impacts of waste-to-energy they represent the core of what drives Mr. Patz in promoting waste-to-energy technology.

Mr. Patz has provided program management for many large projects that have included numerous professional disciplines such as archeology, architecture, waste management, environmental science, geology, hydrogeology, health science, chemistry, biology, and civil, chemical, mechanical, environmental, and geotechnical engineering professionals.

Mr. Patz has also delivered speeches for and given technical presentations to the boards of major corporations, professional groups, students, politicians, and monarchs, as well as Rotary Clubs and Kiwanis.

SELECTED PROJECT EXPERIENCE

EMINENT DOMAIN and LITIGATION SUPPORT

Hawthorne Redevelopment Agency / Redevelopment Project, Hawthorne, CA

Managed Environmental Site Assessments (ESAs) of a 28-acre, mixed-use land assembly in the city of Hawthorne, with retail, industrial, manufacturing, and residential properties. An area-wide Phase I assessment made recommendations for geophysical surveys; soil vapor surveys for aromatic and halogenated volatile organic compounds and asbestos surveys; subsurface soil sampling for heavy metals, halogenated and non-halogenated volatile organic compounds; and groundwater monitoring well installation and sampling for hydrocarbons. Managed the characterization and remediation of numerous areas affected by small amounts of soil contamination as well as leaking underground storage tanks. Made recommendations to the redevelopment agency and its attorneys on potential costs of environmental cleanup for purposes of withholding money set aside for eminent domain takeover of the sites. Coordinated the permitting and authorization processes of many different regulatory agencies and attorneys to accomplish the myriad of environmental site assessments, characterizations, and remediation occurring at the property.

Jenny, Jenny, & Jenny / Eminent Domain, Vallejo, California

An attorney represented clients whose property was taken under eminent domain by Caltrans for the expansion of a State highway. The property was devalued to nearly zero due to perceived costs for environmental cleanup that included lead in soil, and petroleum in soil and groundwater. Assessment included the viability for reimbursement of a portion of the cleanup costs by the State of California. In addition, expert opinion was offered on what entities may have been responsible for the lead contamination as dictated by past cases filed under CERCLA. Mr. Patz provided an expert opinion summary report, and was deposed by Caltrans attorneys on two occasions. The case was settled prior to the court date for an increase in payment of about \$800,000.

Beechcraft Aviation / John Wayne Airport, Orange County, California

Contracted by attorneys of Beechcraft to provide litigation support for a \$10 million dollar law suit versus the County of Orange for a perchloroethene (PCE) groundwater contamination mitigation effort. Mr. Patz

conducted extensive research into site specific conditions, and briefed the board of directors if Beechcraft concerning the progress of the investigations. Mr. Patz conducted fate and transport modeling of the PCE plume and graphically presented sufficient data to prove that Beechcraft was not responsible for contamination cleanup. The County of Orange withdrew the suit, and paid attorney fees. Mr. Patz received commendation letters from Beechcraft as well as the litigation attorneys.

ENVIRONMENTAL ASSESSMENT and REMEDIATION

Target Stores / Assessment and Remediation, Indio, CA

Target Stores purchased a portfolio from bankruptcy court of a former “big box” retail company. This site had a gasoline service station. The service station was demolished and all pumps, piping, and tanks were removed from the site. Initial assessment found that groundwater contained free floating product. The assessment of the site included drilling and sampling in nearly 50 soil borings and included the installation and monitoring of 28 groundwater monitoring wells. An air sparging and vapor extraction system was put in place and was designed with enough vacuum to obtain regulatory closure in 24 months, which saved the client tens of thousands of dollars.

Target Stores / Assessment and Remediation, Riverside, CA

This site previously had a gasoline service station. The service station was demolished and all pumps, piping, and tanks were removed from the site. Floating product was found on the groundwater during the initial assessment phase. More than 40 soil borings were advanced to find the limits of contamination. Seventeen of the borings were converted to monitoring wells. An air sparging and vapor extraction system was “over engineered” put in place. The site received regulatory closure only 18 months after the remediation system was installed.

True Value Hardware / Assessment and Remediation, West Covina, CA

A Phase I ESA recommended the removal of an underground storage tank prior to the end of the 60-day escrow period as dictated by the client. Mr. Patz managed the complete project. We were directed to remove the tank and then “chase” any contamination until it was all above ground. Apparently 15 year prior the tank pump had been locked open and the entire 10,000-gallon contents of the tank were emptied onto and allowed to seep into the surface. This fact was not revealed until after the UST was removed. The contamination was “chased” until groundwater was encountered at 45 feet below surface. The groundwater had an obvious surface sheen. In the end, more than 15,000 cubic yards of contaminated soil was set in wind rows onsite. Hundreds of analyses were conducted by an onsite mobile lab, and considerable numbers of heavy equipment were constantly in motion. All this was finished within the 60-day escrow period (including the Phase I). Soil piles were bio remediated onsite and groundwater monitoring wells were placed for in-situ treatment.

Easy Mart / Assessment and Remediation, San Jose, CA

Mr. Patz managed the assessment and monitoring of a gasoline service station. The original consultant on the project was clearly taking advantage of the inability of the owners to speak English and comprehend environmental regulations. Mr. Patz aided the owners (pro bono) in getting accepted to the California Underground Storage Tank Petroleum Cleanup Fund, wherein the owners were reimbursed for all costs incurred under the previous consulting firm. A more practical and ethical approach was initiated into the assessment and monitoring of the groundwater problem at the site. Following assessments and monitored

natural attenuation, the site received regulatory closure for soil and groundwater contamination.

WASTE MANAGEMENT

Government of Ras Al Khaimah, United Arab Emirates / Waste Management

Mr. Patz was contracted by the government of Ras Al Khaimah to start their waste management program from the beginning. Mr. Patz was intimately involved in managing much of the project. Ceres Associates began by writing and having codified a new set of environmental laws and regulations. An environmental awareness program was instituted for all age levels. The collection system was modernized and new collection vehicles were purchased from the United States. A materials recycling facility was designed and constructed. A 50-year landfill was designed and constructed using US EPA and European Union guidelines. It was the first such landfill in the GCC nation.

Municipality of Madinah, Kingdom of Saudi Arabia / Waste Management

Lead an effort that resulted in a state-of-the-technology landfill for a city that produces about 3,000 tons of municipal solid waste per day. A materials recycling facility was constructed to initiate a recycling effort in the area that resulted in ancillary economies in the near vicinity of the landfill and MRF. This project was requested as a copycat of the earlier project in Ras Al Khaimah, UAE. Nearly 80 percent of the possible recyclables are captured from this facility for additional downstream uses. Plastics were thermally changed into extrusion beads and then used to create “plastic wood” for the use in construction of patios and patio furniture.

DUE DILIGENCE

Industrial Polluters, Southern California

Conducted research for large industrial companies and government entities who had known groundwater contamination in order to find if other companies/entities in the near vicinity were likely to have contributed to the contamination and would then be party to a portion of the cleanup costs. This work was conducted for Superfund sites as well as other contaminated sites in the industrial areas metropolitan Long Beach, California.

Second Level Reviews, Washington, Oregon, and California

A major national lending institution acquired a smaller bank through merger. Prior to completing the deal, Phase I environmental due diligence was conducted on about 300 bank-owned properties throughout California, Oregon, and Washington. Mr. Patz prepared reviews on 95 of the Phases I ESAs, providing his opinion to the Bank on potential environmental liability and costs, if recommendations were sufficient or excessive, or if the bank should not purchase a particular branch.

Mortuary and Cemetery Properties Purchase throughout Southern California

Managed the Phase I projects of a Texas company’s purchase of 30 cemetery and mortuary sites in five counties of southern California. The purpose of the Phase Is was to help the client obtain a better negotiating position on the \$150,000,000 real estate deal. Due diligence was completed on time, within budget, and the client was satisfied with its new bargaining position, which was considerable.

Central Valley Publishing, Central Valley California

A small print publishing was preparing to purchase six newspaper publishing sites from a large west coast publisher, which found they could no longer make a profit with small newspapers. Managed the Phase I and follow up Phase II projects for the multiple-site purchase. All of the newspaper buildings had been in existence since the mid to late 1800s, and most had used various chemicals in the cleaning of the presses, and many had their own fuel storage tanks. Followed up Phase Is with soil vapor and soil and groundwater sampling projects, which delineated small amounts of soil and groundwater contaminated with gasoline, diesel, waste oil, and various chlorinated solvents. Projects were completed on time and within budget, and all six properties were purchased with the negotiation power created by conducting these assessments.

Marquardt Aerospace, Van Nuys, CA

Managed a series of ESAs of a 56-acre aerospace manufacturing facility in southern California that had conducted research and development as well as test runs on a hazardous waste incinerator, based on jet engine technology. The facility was primarily involved in the manufacture and testing of jet airplane and rocket engines. As offshoots of that business, large storage tanks of various highly volatile chemicals were stored both above and below ground. The facility offloaded chemicals by rail and destroyed as much waste as they could onsite in their proprietary thermal converter. The initial Phase I ESA resulted in recommendations for a large-scale geophysical survey to find subsurface containers; 150-point soil vapor survey; asbestos surveys; near-surface and subsurface soil sampling for heavy metals, petroleum hydrocarbon compounds, and halogenated volatile organic compounds. Fifty-seven soil borings were drilled to varying depths up to 70 feet below ground surface in the bull's eyes of contours established by the soil vapor survey point concentration contours. Although high concentrations of 1,1,1 TCA were found in the vapor phase, significant concentrations were not found in the soil. Characterization of a diesel fuel spill was conducted as an addendum. Conducted a fate and transport study that was coupled with a risk-based corrective action report, and a recommendation was made to leave the affected soil in place.

Various Phase I ESAs throughout the United States

Mr. Patz has managed and conducted thousands of Phase I ESAs on numerous types of properties for just about every kind of property transaction. Work has been conducted primarily in California, but also in 16 other states for small and large banks and other lenders, insurance companies, attorneys, private land owners, large and small businesses, farmers, developers, government entities, and real estate professionals. These projects have resulted in varying recommendations, many resulting in complex remediation of soil and groundwater. Of course, most generate “no further recommendation”, however many have suggested additional work that has found considerable contamination that altered the process and the costs the real estate transaction.