

# **Analysis of EHS & Related Job Orders Received by Search Consultants International, Inc. from December 1, 2003 through March 21, 2006**

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## **INTRODUCTION**

It is no secret that the U.S. economy has been improving overall and in most business sectors the last two years, following the pronounced jobs recession that started in late 2001. Accordingly, a personnel search firm with a specialization in nation-wide placement within Environmental-Health/Hygiene-Safety and “Related Disciplines” (regulatory affairs, security, transportation compliance) noticed an increase in its job orders for such professionals, and has placed the start of the job recovery about December 1st, 2003.

Job orders received during the subsequent 28-month period (through March 21st, 2006) have been analyzed herein by (1) employer type, (2) location by region of the U.S., (3) EHS/Related Disciplines subject matter content, (4) environmental subject matter content, where applicable, (5) placement within a company’s organizational structure, (6) title, and (7) management function. A total of 153 jobs was analyzed. The jobs analyzed are considered “bona fide”, in other words, formally approved job requisitions from the issuing company. Information on each job included in this analysis was based on detailed discussions with hiring managers at the client companies, so that a thorough understanding of clients needs was obtained.

## **BIAS OF DATA**

It is important to note that there are inherent biases with any search firm as to the job orders they receive, and that those biases will be reflected in any analysis thereof, including this one. There are two general categories of bias: “industry-general”, and “company-specific”. Search Consultants International biases will be addressed within these categories.

Industry-general bias is two-fold: (1) Search firms are seldom paid fees for the placement of entry-level professionals. Therefore, conclusions reached from job order data analysis will not reflect the entire segment of the market from 0 to about 3 years of experience; (2) not all hiring organizations pay fees. Some general categories of hiring entities are traditionally “fee reluctant” in that they tend to avoid paying fees unless absolutely necessary, or not at all. Examples of such entities include many consulting companies, insurance companies, academia, and governmental and financial institutions. Likewise, conclusions reached from search firm job order data analysis will not represent much of this slice of the “real demand”.

Company-specific bias occurs in the tradition of each search firm's practice and its marketing strategy. In other words, no search firm solicits/receives job orders equally distributed within all different industries or organizations, in all geographic regions and job disciplines, and at all levels within these organizations. For example, some search firms may specialize in placement of mid-level EHS professionals in the high-tech industries on the West Coast, whereas another firm may focus placing them in the pharmaceutical industry in the Northeast/Mid-Atlantic U.S.. Within the environmental sector alone, the type of industry served can produce pronounced differences in the job orders received. For example, *hazardous* waste generation is much less of an issue for the mining/aggregates industry than it is for the organic chemical manufacturing industry. Some entire manufacturing sectors have no or very limited processes that fall under OSHA's process safety management standard. Some large assembly plants have limited environmental issues, but tremendous safety and ergonomics demands.

Because of the number of jobs orders analyzed in this study, the national scope of the practice from which the data are derived, and the length of time in practice in these disciplines (since 1986 in environmental affairs, for example), the biases present in the data in this study will *tend* to be minimized. Because of our Gulf Coast location, there is a long-term bias in our practice towards the industries that predominate in this region, principally the crude oil refining and chemical industries. To the extent that these industries are among the most heavily scrutinized by regulatory agencies, and the real job demand this scrutiny produces, the company-specific bias in these data are somewhat mitigated. It is important to note that our firm does have a principally industrial clientele, but it is equally important to note that the large reservoir of jobs that exist in the consulting sector relies principally on industry for work. Therefore, analysis of predominantly industrial jobs data like this is a useful indicator as to what skill sets have been in demand for consultants.

There was minimal marketing bias in the data used in this analysis, as virtually all job orders were received from calls into our office from new companies on referrals, or existing client companies in all EHS practice areas, except environmental sales, asbestos abatement, and environmental bench chemistry.

## DEFINITIONS

"Air Quality" as used herein refers to the Clean Air Act Amendments and related regulations, *not* indoor air quality.

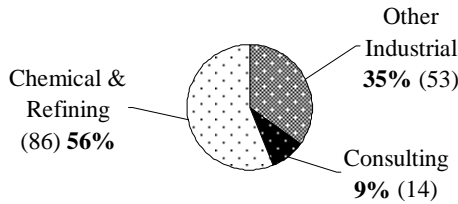
"Regulatory Affairs" refers specifically to EPA regulations (*not* FDA regulations), such as TSCA, FIFRA, product notifications, product labeling, product stewardship and related functions.

All jobs included required at least a bachelor's degree in engineering, science, or safety.

## GENERAL DISTRIBUTION OF JOBS BY COMPANY TYPE AND REGION

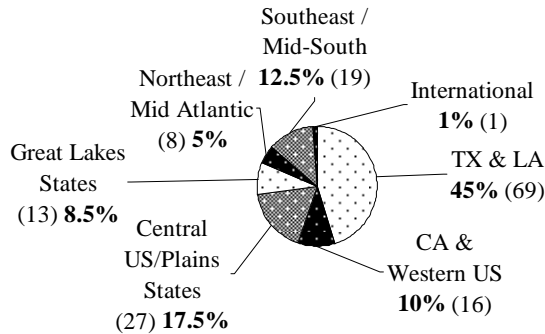
Of the 153 jobs analyzed, 56% were in the chemical and crude oil refining sectors, 35% in other manufacturing/production industries, and 9% in consulting (Figure 1). These data may not exactly represent the real EHS demand nationally, but at the minimum indicate the extreme regulatory pressure the chemical and refining sectors receive. The chemical/refining sector has, as a percentage of its total facilities, a higher number of environmental requirements; than most all other industry sectors. Some large chemical plants alone can have more than a dozen Title V permits. The predominance of air quality in the job market will be discussed later.

**Figure 1: General Distribution of EHS & Related Jobs by Company Type (n=153)**



Of the six regions that the lower 48 states were divided into (Figure 2), the most active region was Texas-Louisiana (45%), followed by the Central US/Plains States (17.5%), the Southeast/Mid-South (12.5%), California/Western U.S. (10.5%), the Great Lakes States (MN-WI-IL-IN-MI-OH) (8.5%), and lastly, the Northeast/Mid-Atlantic (5%). There was one job based overseas. These data reflect a company-specific bias, and though the exact percentages are not the “real market”, they do reflect the growing concentration of demand in southern tier states (57.5%), as many industrial companies have over time relocated or built new plants there because of a generally lower tax base, cheaper source of labor, and lower population density. Also, the entire western half of the U.S. only accounts for 10.5% of the jobs, as there is *comparatively* little industry aside from coastal Northern and Southern California.

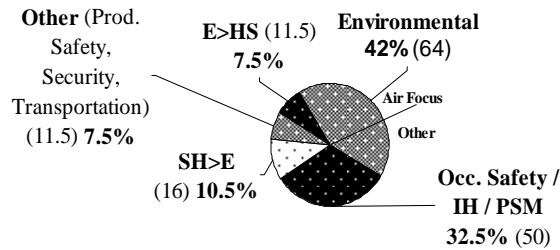
**Figure 2: Distribution of Jobs by Region (n=153)**



## DISTRIBUTION OF JOBS BY SUBJECT MATTER CATEGORY

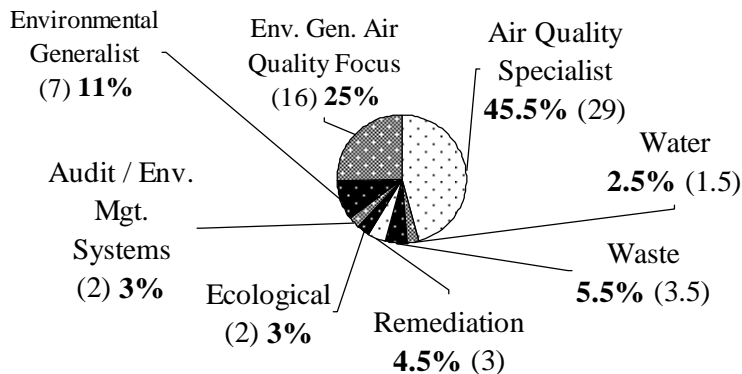
Figure 3 shows the distribution of jobs in EHS and Related Disciplines. Of the 153 jobs analyzed for content, those with a sole content in any aspect of environmental affairs constituted 42% of the total, those with a predominant environmental focus about one-half of the total (51.5%), and those with any environmental content 60% of the total, or 3 in 5. Eighteen percent (18%) of the jobs combined EHS functions to varying degrees, or about two in eleven. Two in five jobs (40%) had no environmental component, but focused alone or in combination on occupational safety, industrial hygiene, and process safety management (32.5%), and regulatory affairs, security, and transportation compliance (7.5%). It is expected that the real percentage of EHS jobs is probably higher than shown by these data, because of the preponderance of jobs in the chemical/refining sector in this study. This bias occurs because the intensely scrutinized chemical and refining industries tend to segregate environmental from other functions (unless the plant is less than about 75-100 employees) because of the sheer demand of their environmental requirements. Typically, the environmental-health-safety functions are combined at plants at the management level, with separate environmental and safety/health departments underneath. Therefore, technical jobs in this sector analyzed in this study will generally not include the combined EHS functions.

**Figure 3: Distribution of EHS & Related Jobs by Subject Matter Category (n=153)**



Of the sixty-four jobs that had a sole environmental focus, those that focused strictly on air quality comprised 45.5% of the total, and those that required a generalist with a principal focus on air accounted for an additional 25% (Figure 4). Therefore, jobs that had an exclusive or primary air quality focus comprised about 7 in 10 of all environmental-only jobs (70.5%). The jobs that required a true environmental generalist, in other words, jobs that required equal attention overall to the three main areas of compliance---air, water (waste- and storm-), waste (hazardous and non-hazardous) ---were 11% of the total. To look at these data in another way, *81.5% of all environmental-only jobs required a credible knowledge of air issues*. Jobs that required single discipline knowledge of water (2.5%), waste (5.5%), and remediation (4.5%) totaled merely 12.5%, or 1 in 8 jobs. These data bear out what has been observed by the author since the mid-1990s---air quality has been the single most desired subject matter skill set in the last decade. To look at the importance of air quality from another perspective, the 45 jobs that had a main focus in *air quality accounted for almost 30% of the total jobs in the EHS and related disciplines, and a good working knowledge of air quality issues was essential for 34% of all EHS & related jobs*.

**Figure 4: Environmental-Only Jobs by Subject Matter (n=64)**

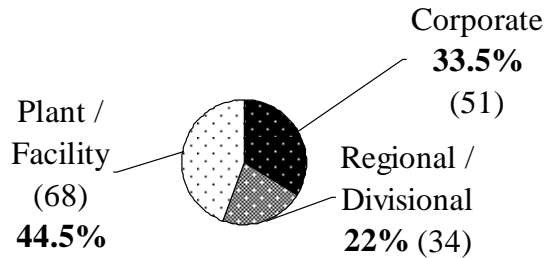


## DISTRIBUTION OF JOBS BY ORGANIZATIONAL STRUCTURE, TITLE CATEGORY, AND MANAGEMENT FUNCTION

Figure 5 depicts the percentages of jobs received at three levels within a typical company structure---corporate, regional/divisional, and plant/facility. Jobs received from consulting companies, which do not follow exactly this hierarchy, were assigned to field locations if indeed those jobs were actually housed at their client's facilities or at branch office. One-third of all jobs were corporate (33.5%), and about two in nine were regional/divisional (22.5%) which may seem high in a continuing climate of corporate downsizings, merging, and decentralization, even though the economy has improved. This may be explained in part because many companies over-reduced their corporate jobs during the jobs recession from late 2001 to late 2003, only to

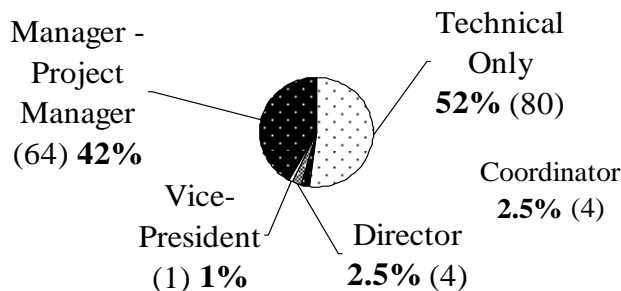
find later that some of those jobs really *were* necessary, and had to be restored when times got better. Another explanation comes from industry bias—search firms are more likely to be contacted to fill management-level positions, many of which occur in corporate and regional offices. Nonetheless, plant/facility jobs comprised 44.5% of all jobs received, which probably accurately depicts a real predominance of such jobs in the marketplace.

**Figure 5: Distribution of EHS & Related Jobs by Organizational Structure (n=153)**



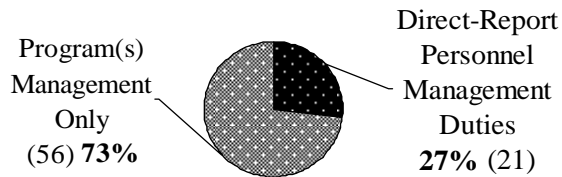
The number of “technical only” positions was 52% of the total (Figure 6). If you consider that “coordinator” positions often are purely technical, and therefore do not involve people management, then 54.5% of the jobs are essentially technical-only. The remaining 45.5% of jobs are therefore management in title, ranging from “Manager/Project Manager” (the latter title predominating in consulting companies) to “Director” and “Vice-President”. Only 4% of the jobs were executive in nature, defined as either “Director” or “Vice-President”. Vice-Presidential job orders are often the province of the large international retained search firms, so our firm, which also does a large volume of contingency search, will not get as many of those searches. However, this industry bias is counteracted by another industry bias—that most such jobs are put out for search, and not filled through more traditional advertising methods, so these jobs will be seen in a greater percentages relative to their absolute totals than lower-level positions. The overall effect of these counteracting biases makes the 4% number for executive job orders probably fairly realistic.

**Figure 6: Distribution of EHS & Related Jobs by Title Category (n=153)**



With the long-term trend of organizations to “flatten” themselves, that is, the removal of layers of management, means that “Manager” doesn’t always mean what it used to---73% of the jobs that contained “Manager” in their titles did not contain any direct personnel management responsibilities (Figure 7). Therefore, only about one in four management-titled jobs involved personnel management. “Direct” is defined as managing a subordinate’s day-to-day work activities, hiring and firing them, and performing performance and salary reviews.

**Figure 7: Distribution of EHS & Related Jobs Entitled Manager – Director – Vice President, by Management Function (n=77)**



## SUMMARY AND CONCLUSIONS

The number of jobs in environmental, health, safety and related disciplines started to noticeably increase around December 2003. The 153 *bona fide* job orders included in this study were recorded in the subsequent 28-month period, through March 21<sup>st</sup>, 2006. Though recruiting industry and our own company-specific biases occur in the procurement of job orders, it is thought that the dominance of chemical/crude oil refining jobs in the South Central (Texas-Louisiana) and Southeast U.S. may reflect if not majorities, at least pluralities in trends in demand and geography. Forty-two percent of all jobs recorded were purely environmental in nature, 18% combined the EHS functions, 32.5% were either safety, process safety, or industrial hygiene alone or in combination, and 7.5% were in related disciplines. Of the purely environmental jobs, 70.5% had an exclusive or dominant air quality focus, and 81.5% required a good working knowledge of air quality issues. The water-waste-remediation disciplines combined comprised only 12.5% of the total, or only 1 in 8 environmental-only jobs.

In the larger picture, jobs with a principal air quality focus accounted for about 30% of all EHS & Related Discipline jobs, and a good working knowledge of air issues was essential for 34% of all such jobs. Therefore, air quality was by far the most dominant single subject matter category in this study.

‘Technical’ jobs constituted 54.5% of the total; 4% were executive-level (‘director’ or ‘vice-president’), and 42% were ‘manager’ or ‘project manager’. Plant jobs outnumbered regional or corporate jobs, though the unexpectedly high 33.5% total for corporate jobs may reflect either a partial restoration of jobs that were “over-cut” during the previous recession and/or our firm’s bias to obtain such jobs. Seventy-three percent of all management jobs did not involve direct personnel supervision, which probably reflects continued flattening and overall thinning of hierarchies in companies.

Unless there is a major relaxation of air quality regulations, it is expected that air quality will dominate the future environmental job market, though, as that market matures, hiring in the waste and water fields may accelerate because of replenishment needs due to retirements.