

Classification Associate Toxicologist	Position Number 814-600-7941-XXX	Location Sacramento (Headquarters)
Division/Branch Human Health Assessment Branch	Supervisor's Classification Senior Toxicologist	Collective Bargaining Identification Designation (CBID) R10
Conflict of Interest Disclosure: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Incumbent (If filled) VACANT	

Job requires driving automobile: In this position, the incumbent may, as needed, drive a state vehicle for work purposes. (Employee must complete DPR-034, Request for Driver Record Information).

SUPERVISORY RESPONSIBILITIES (Check One) Managerial Supervisory Lead Person None

Direct Supervision Exercised:		Indirect Supervision Exercised:	
No. of Employees	Classification Title	No. of Employees	Classification Title

I have read and discussed these duties with my supervisor.

Employee Signature	Date
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I certify that the DPR-217 accurately represents the duties and responsibilities of the position.

Supervisor Signature	Date
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Description of Duties (Attach additional sheets, if necessary, and identify position information)

Summarize the regularly assigned duties of the position by percentage in descending order. Do not combine distinct activities into a single percentage. Descriptive information should reflect variety and complexity of duties through: supervision exercised and/or received; responsibility for decision making and consequence of error; analytical requirements; special knowledge; skills or abilities required; level, type and frequency of public contact; and unusual working conditions (i.e., field work, bilingual services, etc.); and physical requirements (physical demands, environmental demands).

Percent of Time	Activity
40%	<p>Under the general direction of the Senior Toxicologist, Chief of the Risk Assessment Section, the Associate Toxicologist evaluates and interprets studies and data for the purpose of advising on health effects. The incumbent will serve as a team member and will conduct human health risk assessments of pesticides to predict the type of health effects and their extent in humans under given conditions of exposure using conventional and new approach methodology (NAM) techniques. Specific responsibilities are listed below.</p> <p>ESSENTIAL FUNCTIONS:</p> <p>Conducts comprehensive human health risk assessments for pesticides. Develops the Hazard Identification, Risk Assessment and Risk Appraisal sections of the Risk Characterization Documents (RCDs). Participates in all phases of risk assessment, including the problem formulation phase and the development of any required documentation such as the hazard identification presentation, memoranda on critical endpoints, draft and final RCDs, and responses to comments from registrants, stakeholders, and external scientific reviewers. Interacts with the other sections in the Human Health Assessment Branch (HHA) in the development of the risk assessments. The incumbent would be responsible for the following tasks:</p> <ul style="list-style-type: none"> • Reviews toxicological studies submitted for registration of pesticides and studies published in the open literature. Reviews registration/re-evaluation data summaries prepared by HHA’s Active Ingredient Section and toxicology profiles prepared by HHA’s Toxicology and Dose Response Assessment Section. • Analyzes and interprets clinical and neurobehavioral signs, changes in clinical chemistry in blood and urine, histopathological findings, reproductive and developmental effects, genotoxic and carcinogenic potential of pesticides. Predicts modes of action (MOA) and adverse outcome pathways (AOP) of pesticides using NAMs, including toxicity pathway-specific in vitro testing (toxicogenomics, molecular mechanisms, Toxicity Forecaster, ToxCast) high-throughput screening assays and structure activity relationships. • Determines plausible treatment effects and dose-response relationships and establishes critical points of departure (POD). Develops pharmacokinetic/pharmacodynamic profiles. Applies NAMs models for estimation of dose and concentration as toxicologic points of departure and defines and provides basis for inter- and intra-species factors. Uses dosimetry approaches to convert animal exposures to human equivalent doses and concentrations. • Reviews residential and occupational exposure assessments prepared by HHA’s Exposure Assessment Section. Incorporates exposure scenarios by plausible routes and relevant durations into the RCDs. • Combines the dose response assessment with human exposure to estimate the risks in terms of margins of exposure (MOE). Performs quantitative risk characterization for cancer effects and estimates risk of cancer. • Justifies uncertainties, conclusions and recommendations resulting from the evaluations. Provides robust analyses for release to the scientific community and the public.

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Percent of Time	Activity
	<ul style="list-style-type: none"> Incorporates inputs from both internal and external reviews. Works with other members of the section and the branch to provide key inputs for risk management decisions by the Departmental director.
15%	<p>Conducts dietary (food and drinking water) exposure assessments of pesticides using various tools for deterministic and probabilistic estimation. Compiles residue data from available residue monitoring programs. Works with other members of the section to explore new dietary software and to periodically update HHA's dietary exposure assessment guidance.</p>
15%	<p>Participates in the California Pesticide Residue Monitoring Program (CPRMP). Evaluates dietary risk to consumers from exposure to illegal pesticide residues on domestic and imported fresh produce in the California marketplace. Works with DPR's Enforcement Branch on communicating the results of the assessments. Periodically revises and updates procedures and works with the HHA CPRMP team on training and continual quality improvement.</p>
15%	<p>Provides advice on key science-based decisions and makes sound recommendations to the Senior Toxicologist based on synthesis and interpretation of scientific results related to the potential public health impacts of pesticide use. Sustains and improves professional status, which includes reviewing current scientific literature pertinent to the use of pesticides and establishing contacts with appropriate university and research scientists. Attends professional meetings and training workshops and presents at scientific forums. Prepares scientific articles for publication and represents the Department to government organizations, professional societies and industry groups. Remains current with the latest technological developments on in vitro toxicity testing and 21st Century Toxicology [e.g., quantitative structural activity relationships (QSAR), physiological based pharmacokinetics (PBPK), and adverse outcome pathways (AOP)]. Maintains and updates references for guidelines and protocols in accordance with State and Federal regulatory requirements.</p>
10%	<p>Conducts evaluations of residues detected in California drinking water in support of the Environmental Monitoring Branch's ground and surface water protection programs. Works with toxicologists from HHA's Toxicology and Dose Response Assessment Section in the calculation of human health reference levels and participates in the development and review of corresponding databases, procedures, tools, and documents.</p>
5%	<p><u>MARGINAL FUNCTIONS:</u> Performs other duties as required consistent with the classification.</p> <p><u>WORKING CONDITIONS:</u> Any work performed in the office will be conducted in a climate-controlled cubicle within a high-rise building. Must be able to use a computer for up to 8 hours per day. Occasional travel by car or plane may be required.</p>

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Percent of Time	Activity
	<p><u>CRITICAL JOB COMPETENCIES:</u></p> <p>Communication - Makes clear and convincing oral presentations to individuals or groups; informs, persuades, builds consensus; knows the audience; facilitates open exchanges of ideas/opinions; selects and uses appropriate communication approaches; actively listens; effectively uses e-mail; avoids mixed messages, the body language says one thing, the words another; and applies business writing principles to all written communications.</p> <p>Decisiveness - Makes decisions in a decisive and timely manner; willingly shares decision making with direct reports - transparent decision making process as warranted; accepts accountability for decisions; perceives impact and implications of decisions; takes action consistent with available facts, constraints, and probable consequences; and enables others to succeed and make decisions for themselves.</p> <p>Ethics/Integrity - Creates a culture of trusting relationships; demonstrates trust and principled leadership; promotes organizational vision and values through ethical leadership principles; tells it straight - open and honest even about the bad news; admits mistakes - not as an admission of weakness but as having integrity and being trustworthy; and provides examples of the vision and values of the organization through own authenticity.</p> <p>Flexibility/Adaptability - Readily integrates changes midstream into work processes and outputs; demonstrates openness to new organizational structures, procedures, and technologies; and shifts gears comfortably.</p> <p>Political Acumen - Identifies the internal and external politics that impact the work of the organization; perceives organizational and political reality and acts accordingly; considers a broad range of internal and external factors (big picture) when solving problems and making decisions; identifies critical, high payoff strategies and prioritizes work efforts accordingly; in taking action, demonstrates an understanding and consideration of how it will impact stakeholders and affected areas in the organization; formulates strategies that are achievable, cost effective, and addresses administration and organizational goals; develops and balances operational and strategic management skills; and creates a strategic frame of reference.</p> <p>Problem Solving - Perseveres in the face of obstacles such as diminishing financial resources; knows there is more than one way to get to the destination; anticipates problems and encourages a culture of proactive problem solving; and ensures comprehensive evaluation of the costs and benefits of all options in determining the preferred solution.</p> <p>Project Management - Garners support for projects; develops work plans with tasks, timeframes, milestones, resources, and dependencies; uses resources efficiently and manages effectively within budget limits; anticipates potential problems and institutes controls and contingency plans to address them; and monitors project progress.</p>

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	<p>Self-Motivation, Optimism, Sustained Commitment, Perseverance, Patience - Demonstrates a bias toward optimism and maintains a sense of humor; retains stamina and bounces back from setbacks; views mistakes as opportunities for growth/positive learning experiences.</p> <p>Teamwork - Facilitates and maintains cooperative working relationships; works toward accomplishment of group goals; values and encourages the input and expertise of others; and fosters commitment, team spirit, pride, and trust.</p> <p>Technical Credibility – Understands and appropriately applies procedures, requirements, policies, and regulations related to specialized expertise; integrates technology into the work to improve program effectiveness; possesses up-to-date knowledge in the profession and industry and accesses other expert resources when appropriate; and translates concepts and ideas into strategies and action steps.</p> <p>PROFESSIONAL ATTRIBUTES: In addition to the above, the incumbent possesses the willingness and ability to: get along with others; accept direction from supervisors/lead persons; abide by work rules; accept constructive criticism; and work effectively within a team environment.</p>